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## ORIGINAL LECTURES.

### VERSIONS AND FLEXIONS OF THE UNIMPREGNATED UTERUS.

*A Course of Lectures delivered before the Boerhaavian Society.*

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#### LECTURE V.

##### SYMPTOMS—(Continued).

##### b. Symptoms referred to near parts.

a. An important symptom of versions or flexions of the uterus, especially of the anterior variety, is the bladder disturbance. The most urgent is strangury. The cause may be mechanical. The fundus of the anteфлекted organ may impinge upon the posterior vesical wall, and retard its expansion: and act also as a source of continual irritation, thus causing the detrusor vesicæ to make frequent contractions. Dr. James Johnson reports a case of anteфлекcion in which the mechanical pressure was so great that a catheter was introduced with great difficulty. Hewitt states that the bladder is less disturbed in slight degrees of retroflexion than by the same degree of anteфлекcion. It is retroversion rather than retroflexion that implicates the bladder, that is mechanically, as the vaginal portion is not dislocated forwards to the same extent in the latter displacement. West, Rockwitz, Kiwisch, Sommer, and Bennet believe that the bladder symptoms may be due to causes other than mechanical. According to Bennet, symptoms of vesical irritation due to pressure are rare, the usual cause being a morbid state of the urinary mucous membrane. Rockwitz believes that the stretching and compression of the neck of the bladder may induce hyperæmia of the vesical mucous membrane, and which is but a part of the congested condition of all the organs in the small pelvis. The degree of the disturbance in micturition would in a measure depend upon the intensity of the hyperæmia present. Skene expresses the opinion that the dysuria of anteфлекcion is the result of a supersensitiveness of all the pelvic organs. The bladder irritation has also been explained by the pressure and traction exerted upon the centres of innervation by the depressed fundus (Hueter). Now and then the bladder symptoms assume the form of a cystalgia occurring in paroxysms with dysuria. The appearance of ischuria paralytica, or impaired power of the detrusor urinæ, or of the sphincter with incontinence of urine has been recorded (Hueter). In cases in which the moral force of the woman is impaired, hysterical conditions are associated with vesical symptoms, generally in the form of retention. In consequence of the vesical hyperæmia, thickening of the mucous membrane may be developed with impairment of the capacity of the organ, forming a supplemental source of irritation.

Strangury is often noticed in these displacements of the uterus at the menstrual periods. This is sometimes

very severe, amounting to an incomplete incontinence. Rarely, this symptom alternates with spasm which is generally temporary and equal in intensity to ischuria. The cause of this form of vesical disturbance is twofold; first, in retroflexion, at the menstrual epochs, the degree of the flexion is increased and the posterior vesical wall drawn backwards proportionally, by which the power of the sphincter vesicæ is more or less impaired, hence the incomplete incontinence; and, secondly, a hyper-sympathy may exist between the bladder and uterus, implicating the sphincter, and hence strangury or ischuria develops. Retarded micturition, according to Sommer, has its origin in displacement of the posterior wall of the bladder by the elevation of the cervix, thus stretching the vesical wall in case of relaxation of the vagina. It may also cause a displacement of the urethra, by which the exit of the urine is rendered difficult or impossible. In recent forward displacements of the uterus the result of corrected involution of the walls of the organ, dysuria and ischuria are common, and which Martin explains by an extension of the inflammation from the uterine neck to the bladder, and to inflammatory infiltration involving the detrusor urinæ. This symptom often develops with great rapidity in these cases, and in retroversion from this cause retention is the usual form for the first 7 to 12 days after parturition. In old-standing versions and flexions from this cause, complications with cystitis, with pus in the urine, have been recorded by Martin.

In rare cases the permeability of the ureters has been impaired by the flexion. This condition has led to enlargement of the ureter and the pelvis of the corresponding kidney and the development of hydronephrosis. Uræmic symptoms have been recorded as the result of this etiological condition. Dr. Thudichum states that a persistent strangury by transferred irritation may cause hypertrophy of the kidneys, and thus lead to permanent urinary symptoms.

b. Symptoms of versions and flexions due to disturbance of the rectum are of great importance. In the first place, defecation may be rendered either painful or difficult by versions or flexions of the uterus in any form. Most authors explain this as the result of mechanical causes. In anteversion, or flexion, it is the vaginal portion, and in backward displacements it is the fundus of the uterus, which is forced against the rectum, and thus places an obstruction in the way of the easy evacuation of the bowels. Experience proves that the retroflexed uterus produces the greatest obstruction to the rectum. Forward or backward flexions of an acute angle, with the uterus inconsiderably enlarged, produce less pressure upon the rectum than an obtuse-angled flexion with the organ hypertrophied. Johnson describes a case in which occlusion of the rectum resulted from the extreme pressure on the rectum. Through the obstruction to the rectum chronic meteorism may result, extreme cases of which are recorded by Kiwisch and Hueter, one of which, described by the

latter, had such excessive rumbling in the bowels, day and night, as to disturb those living near the patient. The mechanical retention of the feces may result in tenesmus, and by the strong efforts to evacuate the rectum the versed or flexed condition of the uterus is aggravated. Considerable general disturbance often results from these efforts, such as prostration, trembling, profuse perspiration, and nervous irritability. Simpson noticed prolapsus ani as a result of these irrepressible expulsive efforts, and in a high degree of retroflexion Mannel reported a case of rupture of the rectum. Additional obstruction is sometimes due to swelling of the hemorrhoidal veins, which may rupture and cause severe hemorrhage from the anus. The continual irritation of the rectum may produce catarrh of its mucous membrane, which will be observed as a mucous discharge, or as covering the feces.

Sommer holds the opinion that constipation is not always due to mechanical causes in flexions and versions of the uterus. His reasons for this are: first, there is a considerable space between the uterus and sacrum, which may be filled; secondly, the fecal accumulation in obstinate constipation, lasting from day to day, cannot be influenced by the uterus at all, since the collection of feces occurs higher up in the sigmoid flexure; thirdly, the constipation quite generally continues after the correction of the uterine malposition; and, fourthly, in diseases, especially those with hysterical complications with anæmia, severe constipation is the rule. Thudichum also believes that the constipation of flexions is not due to mechanical causes, but is the result of contraction of the sphincter recti superior, the existence and physiology of which have been elucidated by Velpeau, Houston, Chadwick, and others. This contraction is believed to be the result of nervous irritability. Sommer rationally supposes that the constipation has its site in the sigmoid flexure, rather than the rectum, and probably has its origin in reflex contraction of this portion of the colon, in atony of its muscular layers. Diminished activity of its muscular elements, due to defective nutrition in the chronic anæmia often characteristic of these cases, may have this effect. It is familiar to all that in these cases of constipation the exploring finger finds the rectum distended by fecal masses in its lower portion far below any possible obstruction by the displaced uterus. Want of muscular power in the rectal muscles caused by defective innervation is also a frequent element in the constipation. By the distention of the sigmoid flexure, pressure may be exerted on the iliac veins retarding the venous circulation, as is evident by the appearance of oedema in the external parts, or in the development of hemorrhoidal tumor. From the same cause a condition of venous stasis is induced in the hemorrhoidal and vesical venous network, resulting in venous hyperæmia of the mucous membrane of the bladder and rectum. This is also explanatory of the atony in the muscular layers of the rectum and of the passive uterine hemorrhage sometimes noticed in these cases.

In recent anteversion, or flexion, caused by defective puerperal involution, severe diarrhoea was noticed by Martin as an occasional attendant, while in long-standing cases from this cause, prolapse of the rectal wall and hemorrhoids with rectal catarrh were noticed by the same observer.

c. Symptoms of versions and flexions of the uterus observed in the abdominal organs are of considerable variety and various origin. Hueter describes a painful sensation in the region of the stomach in some cases of flexion. There is sometimes a sensation of tenderness on pressure, even from the weight of the clothing, and many have to arrange their dress accordingly. These attacks culminate in vomiting occasionally, which relieves the pain. In rare cases the stomach pain is so intense as to lead to the opinion that an ulcer exists. The paroxysmal nature of the attack corrects this error. Velpeau, Kiwisch, Sommer, Depaul, and Scanzoni, have made observations upon the origin of this cardialgia. These authors, with the exception of Sommer, simply state that the pain is due to sympathy with the uterine suffering. Sommer holds the opinion that it is a neuralgia of the intercostal nerves. Hueter believes that the pain is not a nervous sympathy with the uterus, but is the result of traction upon the ligamenta vesico-uterina and recto-uterina, since by lifting up the uterus with any means the pain is considerably mitigated, or cured, while the flexion remains uncorrected. The opinion is expressed by Anstie, that the pain assumes periodical aggravations like a true neuralgia, and the severity is largely commensurate with the sensitiveness of the general nervous system.

In special groups of versions and flexions abdominal symptoms are very frequent; as, for instance, in old retroversions or flexions caused by subinvolution of one uterine wall, pain or spasm in the epigastrium, and attacks of colic with flatulent distention of the abdomen are common. Squarey describes a dragging pain at the umbilicus as a symptom of retroversion or flexion; while Boivin and Dugès describe a pain generally complained of in the lumbar and epigastric regions as symptomatic of anteversion, and which they believe is owing to dragging on the ovarian plexus of nerves, and indirectly involving the great sympathetic plexus.

Chronic vomiting is looked upon by Priestley as a prominent symptom of these displacements, and Tilt has stated the opinion that it is as frequent in flexures as in pregnancy. Martin has specially noticed this symptom in retroversions and flexions caused by defective involution of the posterior wall of the uterus, particularly at the menstrual periods, and a bilious, or mucous, vomiting as common in forward displacements from shrinkage in the ligamentum sacro-uterina, or exudate on the posterior wall of the organ. It is not at all rare to notice persistent acid or flatulent indigestion in long-standing cases of flexions, sometimes to the extent of seriously impairing nutrition.

d. Symptoms involving the nervous system.

a. Hysteria is regarded by some writers as essentially symptomatic of versions and flexions of the uterus. Hewitt remarks that "marked flexions exist in all cases of severe repeated hysterical attacks." Niemeyer says that flexions more than any other uterine disease give rise to hysteria. Amann found retroversion and retroflexion complicated with hysteria to the extent of twenty-six per cent., and the same symptom in sixteen per cent. of the forward displacements. According to Amann's experience, arrest of normal innervation in its various forms is more frequently met with in retroversions and flexions than in the opposite group of displacements. Aside from pronounced forms of hysteria, we find

nervous conditions very nearly approaching it in nearly all long-standing cases of versions and flexions, especially those in which nutrition is impaired. These conditions are exalted sensibility, mental depression, impaired will, palpitation of the heart, abdominal pulsation, and troublesome insomnia. A state undoubtedly due to nervous disturbance, is that of sudden anæmia quickly following the development of a version or flexion, as in the case recorded by Winn. Hewitt has expressed the opinion that this derangement of the trophic nerves is a reflex phenomenon due to the compression of the uterine tissue and nerves at the seat of the flexion. This theory would exclude the versions, which violates clinical experience. While we cannot ignore the reflex character of these disturbances, yet from the very general derangement of the circulation, it would seem that the strongest assault of the disturbing force was made upon this function; and that this primary disturbance may exist as a factor in many of the subsequent symptoms, especially those involving nutrition. So severe in many instances has been the heart palpitation and abdominal pulsation, as to lead to the error of diagnosing organic disease of the heart and great vessels.

*b.* Neuralgia must be regarded as the cause of much of the local suffering in flexions. This neuralgic condition is observed as most intense in the peripheral termination of nerves which are associated with those having their termination in the uterus. The spinal nerves which have their distribution in the uterus are only branches of the third and fourth sacral nerves (Hueter). Diseased sympathetic disturbance is particularly found in the track of the sacral, the lower lumbar, and the coccygeal nerves. Sympathetic pain is also common in the anterior branches of the lumbar nerves, as the frequent pain in the region of the hypogastrium, the mons veneris, the inguinal region, the inner and outer surfaces of the thighs, and in the vulva prove,—points to which the lumbar nerves, as the ilio-hypogastric, ilio-inguinal, external spermatic, the lumbo-inguinal, and the cutaneous femoris, external and internal, extend. In the ramifications of the crural nerves, particularly to the knee-joint, pain is frequently noticed. The anterior branches of the sacral nerves, especially in the plexus pudendalis, are frequently the seat of more or less severe neuralgia. In the median and inferior hemorrhoidal nerves, and in the course of the pudendal branches, the sympathetic disturbance is often expressed as an intense pruritus. Sympathetic contraction of the introitus vaginae, commonly known as vaginismus and coccydynia, has been observed by Kiwisch, Rockwitz, and Säxinger in connection with flexions. Sommer has noticed a tenderness on pressure of the spinous processes of the middle dorsal, the lumbar and sacral vertebrae.

One of the most urgent symptoms of this group is the sacral pain. Hueter describes this pain as belonging to antelexions and a similar pain in the lower bowels as occurring in retroflexions; but this is not clinically true, as we find the sacral pain existing in both forms of flexion alike. The sacral pain is often intense in proportion to the degree of flexion and is intensified by menstruation, exercise, and efforts at defecation. Hueter explains the sacral pain as the result of traction upon the sacro-uterine ligaments; but it is better explained as a reflex irritation.

Spontaneous pain in the uterus is very commonly observed in flexions. According to Sommer, the expansion of one wall of the uterus and the contraction of the other, affect the nerve-fibres of the uterus to equal extent. The uterine sound locates the tender point of the uterine wall at the os internum,—the most frequent seat of the flexion, and at which point the nerves are evidently involved. The nearly general state of blood-stasis in these displacements has two co-results, namely, a diseased nutrition of the uterine nerve-fibres, and an exudation in the parenchyma of the organ, or an interstitial hypertrophy of its walls, either of which must find expression in pain and tenderness. In this condition of things any mechanical irritation, such as the use of the speculum, sound, or introduction of the exploring finger, or any condition which might excite a momentary hyperæmia would develop more or less pain. Venous stasis induced by embarrassed respiration, or the approach of menstruation, may also act as an exciting cause of pain. Strong respiratory efforts through the pressure exerted upon the flexed uterus may increase the extent of the displacement, and thus produce traction upon the already tense broad ligaments through which the nerves travel to the uterus (Hueter). Local nerve pain may also be induced by impaired nutrition, the result of traction upon veins in the broad ligaments. These conditions oftentimes seriously interfere with exercise of any kind and absolutely forbid strong muscular efforts. Rockwitz and Säxinger also explain this condition as neuralgic in consequence of compression of the nerves in the ligamenta lata and in the uterus itself. Another source of neuralgia may exist in the chronic anæmia which is so frequently associated with versions and flexions.

To this last-named cause we may ascribe the occipital neuralgia which is so common in flexions, and also the frequently noticed neuralgia of the first and second branches of the trigeminus nerve. In versions or flexions caused by shrinkage in one or both round ligaments or by exudation upon the anterior uterine wall, Martin has very commonly observed headaches as an accompaniment. Cephalalgia, which very frequently is the most serious complaint the patient makes, is not so much a direct outcome of the version or flexion as it is of the anæmia, the perverted nutrition, or the depressed mental tone.

*c.* Locomotor lesions are often important symptoms of versions and flexions of the uterus. The simplest form of this symptom is that due to a quasi-mechanical factor, namely, obstructed circulation. Thudichum shows, from the anatomical researches of Theile and Briquet, that this obstruction may be the result of impacted position of the uterus in the pelvis, of compression of veins in the broad ligaments, or, lastly, of compression of the left iliac vein by fecal accumulations in the descending colon. The result is a more or less serious impairment of locomotion by cedema of the feet, or by distended or varicose veins. If to mechanical obstruction we add impoverished blood and impaired muscular tone with lessened heart power, so often seen in long-existing uterine displacements, we embrace about all the causes which operate to this end. In recent and long-standing cases of versions and flexions due to arrested puerperal involution of one or the other uterine wall, Martin has noticed this symptom as a frequent



occurrence. Another form of locomotor disability very readily understood is that due to muscular weakness or to pain. Sommer, Rockwitz, and Martin have referred to impaired locomotion caused by soreness and pain in the muscles of the lower limbs, and by weakness or general languor. Martin speaks of this symptom being specially noticed in retroversions and flexions involving contractions of the ligamentum ovarii with fixation of the latter. The same observer has noticed locomotor lesions from pain, in those cases of anteversion or flexion, from contraction of the ligamentum sacro-uterina, or from adhesive exudate on the posterior uterine wall, especially in those subjects who date their disease from a confinement. Martin is inclined to regard these symptoms as neuroses due to the exudate involving the right or left sacral plexus of nerves. The intimate nervous sympathy of the whole system that centres round derangement of the sexual organs in both sexes is possibly as good an explanation as our present knowledge furnishes of the more obscure locomotor lesion simulating, or actually existing, as paralysis of the legs in flexions of the uterus. Bedford refers to a case of paraplegia caused by the retroverted fundus pressing on the sacral plexus of nerves, and Priestley points a moral as well as illustrates a pathological fact in his report of a like result due to the pressure of a Hodge pessary. Paraplegic symptoms have been repeatedly observed to disappear on correction of the uterine error of position. That this symptom is due to actual pressure of the dislocated organ on the sacral plexus is a matter of doubt. Any form of displacement may be attended by this symptom. Martin records four cases of more or less marked paraplegia in long-standing cases of anteversion caused by defective involution of the posterior uterine wall. Reflex nerve irritation must also, for want of any more specific explanation, be regarded as a cause of the paraplegia of versions and flexions.

d. Epilepsy and mania have been noted in extremely rare cases as the result of persistent flexions. Martin saw epilepsy in two cases of anteversion caused by shrinkage in the round ligaments, and adhesive inflammation of the anterior uterine peritoneum. The symptom is too rare, however, to be given importance. Mania, while it cannot be given a place as a flexion symptom, might easily grow out of the anæmia and depraved nutrition so frequently observed in long-existing cases of versions or flexions.

## ORIGINAL ARTICLES.

### A REMARKABLE CASE OF COMPLETE DEXIOCARDIA.

BY ROBERT H. BABCOCK, M.D.,  
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H. N. J. was referred to me for examination on January 7, 1884. His history was as follows: æt. thirty-two years, a repairer of sewing-machines, health good until his twelfth year. He then met with an accident which, according to the doctor's diagnosis, resulted in a fracture of the right clavicle and a comminuted fracture of the upper three ribs of the same side. A long, serious illness followed. At one time the right half of the boy's face and neck

became emphysematous. He thinks that so soon as the day after the accident, he noticed his heart as beating on the right side. At length, after many months, he was able to get about and gradually to resume work on the farm. He experienced no special inconvenience unless upon unusually great exertion, when his heart would palpitate uncomfortably and his breathing become labored. About six years ago he wasted, coughed, and expectorated profusely. His disease was pronounced consumption. Under treatment his condition greatly improved, cough and expectoration almost disappeared, and his accustomed weight was regained.

He considered his health good until about a year ago, when, during a state of great emotional excitement, he was suddenly seized with pain in the lower dorsal region. Last May he carried a sewing-machine about ten rods and up a flight of stairs. This exertion was immediately followed by a feeling of unwonted exhaustion, and pain a little higher up than that just mentioned, by a sensation as if "the left lung were filling up," and by great dyspnoea. The next July he attempted a similar lift, but after a few steps was obliged to set down the machine in consequence of excruciating pain in the centre of the back, a purring sensation near the lower angle of the left scapula, utter exhaustion, and dyspnoea. Henceforth his heart seemed to beat less strongly. Since last September he has repeatedly suffered from the sense of fulness of the left lung accompanied with overwhelming dyspnoea. These attacks have been succeeded by slight hæmoptysis. His habits have been dissolute. His condition has grown gradually worse, until at the time he presented himself for examination he complained of the following symptoms:

Impaired strength, cough with slight expectoration, throbbing dorsal pain on exertion, which sometime radiates chiefly toward the left, a distressing purring sensation in the same locality, an occasional sense of fulness of the left lung with extreme dyspnoea, restlessness and wakefulness at night, inability to lie on the left side, pain and uncontrollable nervousness, occasional numbness in the extremities, chiefly the upper, slight dysphagia in the deglutition of liquids, some huskiness of voice, pain in the back upon being jarred, tenderness and soreness in right infraclavicular region, great palpitation upon ingestion of alcoholic stimulants, gradual loss of strength without loss of bodily weight, appetite good, bowels confined.

A careful physical examination revealed the following: Height nearly six feet; weight one hundred and seventy pounds; face pale; pupils normal; no venous congestion of upper part of the body; the left shoulder slightly elevated, and the corresponding side of the chest noticeably full and prominent; the right clavicle shows unmistakable evidence of previous fracture, and the right half of the thorax is visibly smaller than its fellow, being somewhat flattened inferiorly on its antero-lateral aspect. Below the right clavicle ( $\frac{3}{8}$  of an inch), beginning at the right edge of the sternum, is a conspicuous ovoid depression which is 4 inches in length and  $1\frac{1}{8}$  inches in breadth, with its long diameter parallel to



that of the ribs. Below this depression and involving the right nipple is a pulsating area that stands out from the general level of the remaining chest-wall; there is slight epigastric pulsation; also a trifling scoliosis to the right. Upon inspiration the left half of the thorax expands fully, while the right remains motionless. The epigastrium sinks toward the close of forcible inspiratory effort.

Pectoral fremitus is increased over all portions of the right lung, except over the pulsating prominence already described, and is unchanged upon the left side. The cardiac impulse is felt 1 inch below and  $1\frac{1}{2}$  inches outside of right nipple, and  $4\frac{1}{2}$  inches from right border of sternum; but when the patient leans forwards the true apex-beat is discovered on a line parallel with the nipple,  $2\frac{3}{4}$  inches to the outside, and  $5\frac{1}{2}$  inches from the right edge of the sternum. A slight pulsation is also felt in the hepatic region, synchronous with the cardiac systole and with the visible and palpable pulsation in the *scrobiculus cordis*. The radial pulses are synchronous, full, strong, equal, and eighty to the minute. In the suprasternal fossa the aortic pulsation is indistinctly felt, and like the carotid and subclavian pulses of both sides synchronous with the ventricular systole. The pulsation of the abdominal aorta is distinctly delayed. No thrill is perceived anywhere. Tenderness is complained of only in the neighborhood of the right mamma, though pressure upon the abdominal aorta occasions pain in the back between the scapulæ.

Careful mensuration gives the following differences between the two sides of the thorax: At the level of the second sterno-costal articulation, the left half measures  $18\frac{3}{4}$  inches; the right, at same level,  $16\frac{1}{2}$  inches; left, at fifth sterno-costal articulation,  $18\frac{3}{4}$  inches; right, at same level,  $16\frac{1}{2}$  inches.

The percussion note over all portions of the left lung is full and sonorous. No cardiac dullness to the left of the sternum can be discovered. The left lobe of the liver is somewhat lower than normal. The upper lobe of the right lung anteriorly emits a rather short, high-pitched percussion note, as far down as about 3 inches below the clavicle, the uppermost boundary of the præcordia, and from this point downwards along the mammillary line to the lower margin of the ribs the percussion note remains absolutely flat. The only indication of the superior border of the liver is a sense of increased resistance about 2 inches below the right nipple, at the inferior limit of the pulsating prominence. The inner boundary of the right apex is defined by a line of dullness which passes gradually downwards and inwards into the ovoidal depression a short distance to the right of the sternum. Thence an indistinct line of dullness ascends inwards on to the *manubrium sterni* a little below its articulation with the clavicle. Turning here and growing gradually well defined it runs directly downwards upon the breastbone close to its right border until lost in the hepatic region. Throughout the remainder of the right lung the percussion note is almost flat and the sense of resistance extreme. Over the superior lobe these characters are somewhat less marked. No dullness can be detected over the seat of dorsal pain in immediate proximity to the vertebral column.

Auscultation shows the respiration of the left lung to be vesicular with slightly prolonged expiration. No râles. Vocal resonance, diffused. In the second left intercostal space near the sternum the ear detects a rather faint, rough systolic murmur which is propagated with slightly greater intensity downwards to the fourth space, and more faintly toward the axilla. The respiratory sound of the right apex is loud and broncho-vesicular; the voice exaggerated. Over the inferior lobe, chiefly behind, where the percussion sound is so flat, the respiration is faint but unmistakably tubular; the voice pectoriloquous. No râles are distinguishable.

At the proper location of the apex-beat a slight bellows murmur accompanies and partially obscures the first sound of the heart; the second sound is accented and prolonged. This systolic murmur is heard with greatest intensity on the mammillary line, 2 inches above the nipple; here the second sound becomes reduplicated. As these sounds are traced upwards and inwards, the murmur is lost by degrees, being replaced by an impure first sound; the second grows louder, until at the inner edge of the ovoidal depression it becomes booming, appearing at times to assume the character of a short, rough murmur. These two cardiac sounds, with the same character but less intensity, can be traced into the suprasternal fossa. Along the right border of the sternum they become gradually less distinct, until at the fourth right interspace near the breastbone, they are replaced by the clear first and accented second sound of another set of valves. Both cardiac sounds are propagated throughout the entire right side, most audibly at the inner border of the right scapula.

Two and two-fifths inches to the left of the third dorsal vertebra, an obscure sawing murmur is detected, which has its maximum of intensity opposite the fifth dorsal vertebra, and is propagated from here downwards and outwards. This murmur is synchronous with the ventricular systole and corresponds in character to that heard in front and to the left of the sternum. Change of position does not materially affect the character of the cardiac sounds.

Upon careful percussion any transposition of the abdominal viscera could not be discovered.

As a result of the foregoing facts this interesting and complicated condition of the thoracic organs was interpreted as follows:

Cirrhosis of the right lung with compensatory vesicular emphysema of the left; complete dexiocardia, acquired, with hypertrophy and dilatation of both ventricles; displacement of the arch of the aorta to the right, with probably more or less twisting; sacculated aneurism of the descending part of the thoracic aorta. This was in January, 1884. The last week of the ensuing April the patient presented himself again, and another most thorough examination induced a change of opinion concerning the nature of the aneurism.

The man's general condition did not appear to have altered materially, though he was of the belief that he had lost ground. He complained of all sorts of symptoms which he attributed to the aneurism. He had read considerably upon this form of disease

and by continual study of his symptoms had grown morbid, so that he fancied he was in hourly danger of sudden death from rupture of the sac.

The first examination was corroborated in every particular, except that the cardiac impulse was less strong, the prominence less pronounced and somewhat broader, the heart-sounds and murmur less distinct.

There was furthermore discovered near the angle of the left scapula blowing respiration, but as all other signs of cavity in that locality were wanting, it was concluded that the respiration received its tubular character by transmission from the right lung. This peculiarity had most likely existed, but been overlooked on the previous examination.

Through the kindness of Dr. Lester Curtis, assisted by Dr. W. W. Jaggard, sphygmographic tracings were taken of the right radial and right femoral pulses, which showed them to be normal, and set at rest all thought of a saccular aneurism. Furthermore, they give no indication of valvular disease.

An analysis of the urine showed nothing abnormal; there was no sugar or albumen.

How did this displacement of the heart occur? There is no cause that would produce it so suddenly, as the patient thinks was the case. The two recognized factors, in the production of cardiac dislocation to the right, are pressure on the one hand and traction on the other. There are no signs of pleuritic effusion into the left thorax, or any other condition likely to exercise pressure on the heart, and no cause according to the history for its production. On the contrary, we have every reason to suppose that an extensive and violent inflammation resulted from the laceration of the right pleuræ. That a laceration of the pulmonary pleura occurred is proved by the existence of emphysema of the face and neck. It is reasonable to infer that the lad was delirious for a length of time. Even had that not been so, it would not be strange if his memory had lost all trace of the events of the first few weeks of his illness. Hence we may assume that, when he first noticed his heart beating on the right side, it had been drawn thither by slow shrinkage of pleuritic adhesions and by retraction of the lung. Right here, some one may suggest that the dexiocardia was congenital; indeed, the patient declares that some physicians have thought this probable. Schrötter, in alluding to a case of complete dexiocardia produced by retraction of the right lung, takes this ground when he says:<sup>1</sup> "We must assume that behind the contraction of lung as a cause, there lay a congenital dexiocardia." But this theory is excluded in this case by the fact of the abdominal viscera not being transposed, as is always said to be the case in congenital dexiocardia.

It is not easy to determine the exact pathological condition of the right lung. The pleuritic effusion may have compressed the lung and upon its absorption have left thick deposits of organizable lymph behind, which together with the displaced heart prevented a subsequent expansion. Or, there may be cirrhosis as a result of the extension of the inflamma-

tion into the lung tissue. Or, both factors may have existed, compression and chronic interstitial inflammation with subsequent contraction of the lung.

It was not tuberculosis for which he consulted a homœopathic physician; but cirrhosis with bronchiectasis, the signs and symptoms of which might well simulate those of tuberculosis with consolidation. The condition of the left lung is that of compensatory vesicular emphysema.

To return to the heart: the impediment to the circulation in the right lung must have inevitably occasioned hypertrophy and dilatation of the right ventricle. Immovably held within a space much smaller than that it normally occupies, and hemmed in on all sides, by the cirrhotic lung behind, the chest-wall in front, and the liver below, it has been unable to dilate as fully as it otherwise would have done. It is also interesting to know if the heart underwent rotation; and how. Some rotation on its long axis must have occurred, since in lateral displacements it is said,<sup>2</sup> "Turning of the heart on its long axis generally occurs in such a manner that the right auricle and ventricle come to look more directly forwards and the left cavities backwards." Bamberger has reported a case of dexiocardia, from left pneumothorax, in which the heart rotated in the opposite direction, with extreme torsion of the great arteries. Schrötter, who mentions it<sup>3</sup> as an exception to the rule, thinks there must have been an inherent tendency in the organ to such a turning. In the present case it is inconceivable that the heart could have assumed a so nearly horizontal position in the right side without having revolved on its long axis so as to bring the right cavities further forwards; since to have rotated in the opposite direction would have necessitated a degree of twisting of the large vessels at its base incompatible with the performance of their functions. The anatomical arrangement of the pulmonary artery is such that it would have been wound tightly about the base of the aorta, narrowing its lumen and interfering with its expansion. It seems to be, therefore, a physical impossibility for this heart to have turned from left to right; on the other hand, it is difficult to understand how it could have revolved from right to left without likewise so distorting the great vessels as to disqualify them for duty. Doubtless, their normal configuration has been destroyed. The arch of the aorta must have suffered the greatest deformity, having been displaced and twisted. Yet, strange to say, no indication of it by murmurs is discoverable. Indeed, it is so puzzling even to conjecture the condition of affairs that it would almost seem, notwithstanding the non-transposition of the abdominal viscera, as if the heart had originally laid to the right of the sternum, thus constituting an exception to a condition which is itself an anomaly. But, of course, such an hypothesis is so unlikely as to be absurd. The elucidation of this point must be left to him who is so fortunate as to make the autopsy.

Whatever be the form and position of the aorta, they have not been, probably, without effect on the

<sup>1</sup> Ziemssen's Cyclopædia of the Practice of Medicine. Vol. vi. page 184.

<sup>2</sup> Ziemssen's Cyclopædia of the Practice of Medicine. Vol. vi. page 177.

<sup>3</sup> Ibid., Vol. vi. page 178.

left ventricle. As in the case of the right ventricle, there could scarcely fail to be some impediment offered to the expulsion of its contents; hence the development of hypertrophy. Though how far this has been held in check by the unyielding structures adjacent, there are no means of determining.

The bellows murmur heard at the apex is hæmic in origin, to judge from its character and the sphygmographic register of the pulse. It may denote an alteration of the quality of the blood; or the pressure of the surrounding parts may have so altered the natural shape of the ventricular cavity as to create "fluid veins" within the stream of expelled blood, which "fluid veins" generate the blowing murmur.

As already stated, the rough systolic murmur heard between the left scapula and the spinal column was at first considered as evidence of an aneurism, probably saccular. The conclusion was hasty, and upon further thought it was abandoned, in the belief that, if there were anything more than an atheromatous degeneration of the aortic walls, it was of the nature of a true aneurism. The syphymograph showed the correctness of the opinion, so far as a false aneurism was concerned.

Positive signs of aneurism, such as thrill, pulsation, and a circumscribed area of dullness are wanting; yet, if the patient's symptoms are to be anywise trusted, there must arise a suspicion of aortic pressure upon the adjacent structures. The murmur cannot be relied on as indicating an aortic tumor, since it may be due to an atheromatous roughening of the intima. Indeed, it could scarce be otherwise than that the violence done to the aorta, by the cardiac displacement, was followed by a chronic sclerotic endarteritis; then what more natural than that the atherosed walls should yield to the strain put upon them, and a dilatation eventuate? Furthermore, the correctness of this view derives support from the evident delay in the pulsation of the abdominal aorta, if Balfour be right when he states,<sup>1</sup> "Delay of the pulse is a sign of atheroma, or of dilatation of the aorta, but not of saccular aneurism, which does not interfere with the normal propagation of the pulse."

The prognosis, independent of the condition of the aorta, was regarded as unfavorable, since the repeated attacks of sudden engorgement of the sound lung were looked on as indicative of failure in the compensatory action of the right heart.

The literature on the subject of complete permanent dextrocardia is scattered and, so far as the author has been able to learn, not very abundant. Hence, if this account reach the eye of any one who possesses facts concerning similar cases, the writer would consider it a great favor if allowed to communicate with him in regard to them. Considerable of interest bearing on the subject is to be found in the sixth volume of Ziemssen's *Cyclopædia of the Practice of Medicine*, in the chapter on cardiac displacements. The bibliography of the subject is there also cited.

In conclusion, the writer wishes to state, this case is reported because of its diagnostic and pathological, not therapeutic interest.

2330 INDIANA AVENUE, CHICAGO, ILL.

<sup>1</sup> Clinical Lectures on Diseases of the Heart and Aorta. 2d ed., page 385.

## COCAINE AS A LOCAL ANÆSTHETIC IN OPHTHALMIC PRACTICE.

BY D. C. COCKS, M.D.,

CONSULTING OPHTHALMIC SURGEON TO THE RANDALL'S ISLAND HOSPITALS, NEW YORK.

AT the late meeting of the Ophthalmological Congress at Heidelberg, a short account of the method of using the muriate of cocaine as a local anæsthetic for the cornea and conjunctiva, was given and its use demonstrated. During the week I have had a few opportunities for trying it in my office, and at the clinic of the New York Eye and Ear Infirmary.

CASE I.—Young lady, æt. 20, has had a foreign body in her cornea for twenty-four hours; there is slight keratitis. Two drops of a two per cent. solution of the muriate were instilled into the eye, and again in ten minutes two more. She volunteered the statement that her eye was less painful. The foreign body was then removed with a spud; it was deeply embedded on the cornea and required considerable scraping to remove thoroughly. Some pain was experienced, but not "one-half" that felt when I removed one not so deeply embedded, without the cocaine.

CASE II.—A foreign body was removed from a cornea (male adult), causing only slight pain.

CASE III.—Male, æt. 12. Cornea tattooed without causing *any* pain (although at previous sittings had complained decidedly of the suffering). Did not feel any pain from the wire speculum used.

CASE IV.—Female, æt. 13. Tenotomy of right internal rectus for strabismus; complained of slight pain only.

CASE V.—Female, æt. 21. Tenotomy of right internus; stated that she felt no pain during the operation, but felt uncomfortable from the stretching of the outer canthus by the speculum.

These few facts show that in a certain proportion of cases, the muriate of cocaine does produce decided anæsthetic effects. It is not claimed for this drug anæsthetic influences on the deeper structures of the eye, and why in Case V. pain was not complained of when the subconjunctival tissues and tendons were cut, I do not know. It has no effect on the pupil or on accommodation; no unpleasant results have followed in any case, although it has been used in over thirty cases during the past week in New York and Brooklyn. Besides the above cases I have seen one cataract operation by Dr. J. L. Minor, and one iridectomy for glaucoma by Dr. C. S. Bull; these cases will be reported and, therefore, I do not give them in detail.

What the possibilities are in the future for this new aid to ophthalmic surgery and medicine, I will not pretend to say, nor what disappointments we will meet in its use, but certain it is if the *pure* drug can be obtained, that most of the operations on the cornea and conjunctiva, which formerly required chloroform or ether, can now be done equally well without them.

Further observations in regard to the application of cocaine to ophthalmic surgery and medicine during the past week have shown the line along which we may expect benefit, and where it will not be useful. In all cases, except where there was acute inflamma-



tion, cocaine muriate answered all the requisites of a complete local anæsthetic.

In strabismus operations *no* pain is complained of. In iridectomies the iris retains its sensibility. Where there existed pain and photophobia from corneal abrasions, these were relieved, as is shown by the following case.

CASE VI.—Mrs. M., æt. 25, had her cornea scratched by her infant's nail; severe pain and photophobia were at once experienced. The pain continued so severe that she could not sleep. The next morning she entered my office and gave the above history. I used the cocaine in the usual manner and in fifteen minutes she (unsolicited) stated that the pain had left her eye, and she was able to go to the window and look out without closing it.

On the other hand, the following case was not benefited by its use.

CASE VII.—Mr. N., æt. 36, an iron-moulder, received a red-hot piece of iron in his left eye, burning the cornea at its lower and outer limbus as well as the adjacent conjunctiva. In spite of the use of hot water and atropia, the ulcer spread until it had reached the centre of the cornea. Intending to do a paracentesis of the cornea, I used the cocaine thoroughly, but he experienced severe pain on the introduction of the speculum and when the conjunctiva was grasped by fixation forceps.

October 15, 1884.

206 EAST 116TH ST., NEW YORK.

#### DIFFUSE INFLAMMATION OF AREOLAR TISSUE OF PENIS AND SCROTUM IN A CHILD TWO WEEKS OLD.

BY ALEXANDER MARCV, JR., M.D.,  
OF RIVERTON, N. J.

ON Friday, June 27, 1884, I was called to see a child of Mr. B. The messenger stated that the child was thought to be dying, and he wished me to go immediately. The child, a fine, healthy boy, was born two weeks previous to my visit, and had been particularly well since birth. His condition when I saw him was not alarming, but the mother told me that before I came it had been. She had noticed early in the morning, that he seemed to be suffering, and gave several "peculiar grunts," but as he nursed as usual, and the bowels and stomach were all right, very little notice was taken of it.

About midday he seemed to be still more uneasy, and soon became very cold and blue. She put him in a warm bath and gave small quantities of brandy in warm water, so that by the time I got there reaction had taken place, and the condition of the child seemed natural. I simply ordered that he be kept quiet and warm. Later in the day I saw the child again, when there seemed to be some disposition to lung trouble; his pulse was rapid, respiration very much quickened, and slight elevation of temperature; examination of lungs revealed slight mucous râles, but nothing more. Ordered small doses of aconite rad., with syr. squillæ, and the child to be kept very warm and quiet.

The next day the child seemed better, temperature normal, respiration and pulse much less frequent,

physical signs in lungs normal. Ordered treatment discontinued, and supposed little fellow all right.

On July 1st, three days later, I was asked to examine the child's "privates," which, the mother said, were very much swollen. She had first noticed it two days before, on the day following my first visit, but had not mentioned the fact from feelings of delicacy.

On examination I found them presenting a very unnatural appearance. The scrotum was swollen to twice its natural size, slightly red in appearance, pitting on pressure. The penis was also very much enlarged, but much lighter in color. There was a condition of phimosis present, as the glans could not be exposed on account of the swelling of the organ; it was also cedematous, and looked as though it had been poisoned by the Rhus toxicodendron.

There did not appear to be any particular elevation of temperature in the parts, especially the penis, although the trouble seemed to be inflammatory in its nature; neither were there any systemic manifestations of the trouble at this time. Careful inquiry could not elicit any possible source of poison, and from the child's age such a thing would not have been thought of, but from the striking resemblance to such trouble.

Evaporating and cooling lotions were applied assiduously throughout the day and night, but the swelling increased rather than diminished. Now appeared evidences of trouble from pressure unless the tension were soon relieved. It was proposed to make several incisions through the skin and allow the fluid to drain slowly out of the cellular tissue, but the parents of the child objected, thinking that such a thing would destroy his individuality as a male. By this time the swelling had increased enormously, the parts looking like a bladder. As they would not allow the punctures to be made, a consultation was suggested, to which they readily agreed. Dr. Alex. McCray, of Camden, was called, and he agreeing with me that it was very necessary to relieve the great pressure resulting from the overdistention, the parents allowed me to make several punctures. Considerable serum immediately escaped from the openings, and this was kept up by hot applications.

The next morning the penis looked much more natural, having decreased very much in size during the night.

The swelling of the scrotum had also gone down to some extent, but unfortunately the relief had come too late; the skin in several places looked dark and soft, as though it were going to slough. Poultices of flaxseed were applied, and by the next day it had sloughed on each side of the raphe, which gradually extended until they coalesced, while at the same time it extended in other directions. This slough extended through the skin and superficial cellular tissues, leaving the dartos exposed.

On the 7th of July, four days after the sloughing began, the dartos commenced to look badly, and in 24 hours it had completely sloughed away, leaving the testicles exposed. They were not at all enlarged, and looked none the worse for their rather hard squeezing.

There now existed an extensive ulcer, fully four inches in circumference, the edges of which were irregular and indurated, and entirely devoid of granulation. These appearances were not changed for four days. On the fifth, evidences of granulation were observed around the edges, and by gently stimulating them they developed with great rapidity. At the same time, the opening seemed to grow smaller each day by a sort of puckering or contraction of the scrotum. The ulcer gradually decreased in size, and in a few weeks was entirely healed. The left testicle is perfectly free to move, while its fellow is fastened by adhesion to the scrotum.

During the occurrence of this trouble, the child's general health did not suffer at all, and there was so little pain that anodynes were seldom necessary.

This was, no doubt, a case of what has been called inflammatory oedema of penis and scrotum, and what is more appropriately termed diffuse inflammation of the areolar tissue of the penis and scrotum. I cannot assign a cause, the extremely tender age of the child making its occurrence unusual. The results of this case show clearly the danger of delay in making free incisions to relieve the pressure resulting from the cellular tissue being overdistended with serum.

## HOSPITAL NOTES.

TERRACE BANK HOSPITAL FOR WOMEN,  
PITTSBURG, PA.

Service of R. S. SUTTON, M.D.,  
SURGEON TO THE HOSPITAL.

FIVE CASES OF SUPRAVAGINAL HYSTERECTOMY; THREE  
RECOVERIES AND TWO DEATHS.

Reported by W. L. STONE, M.D.,  
ASSISTANT.

THE extraperitoneal method of treating the pedicle after supravaginal amputation of the uterus and both ovaries is still a question of debate. In the five cases in this report the pedicle was treated inside of the peritoneal cavity. In none of the cases was there any secondary bleeding. In all the stump was secured by strong silk ligatures; the pedicle, being first transfixed, was tied in halves. The end of the stump, in four of the cases, was hollowed out and the flaps stitched closely, uniting the peritoneum across the stump. In one case the stump was divided, after ligation, with the Paquelin cautery. Three of the cases have been at home several months, and are well. Two died. In the *first* one the tumor (fibroid) weighed sixteen pounds, was developed between the layers of the broad ligament on the left side, and the tumor and rectum were closely adherent. The tumor was shelled out of its capsule or bed after the amputation of the uterus. In the *second* the tumor was identical with the first, but weighed fifteen pounds. It was shelled out, and the amputation of the uterus made the last step. The first case died of exhaustion, and the second one of tetanus.

Dr. Sutton looks upon supravaginal hysterectomy as a fairly safe operation, excepting in cases in which the tumor is very large with extensive adhesions, and in such cases as the two given above, in which the pelvis is

full and the development is between the layers of the broad ligament, he trusts to the ligature when he feels sure he has constricted the stump, and believes that it is a great advantage to cover the end of the stump. Once I have seen him ligate the arteries outside the stump with separate ligatures. The case in which he divided the stump with the cautery had more trouble to recover than the others. In two of the cases which recovered he made a deep groove in the cervix with Kœberg's *serre-nœud* and sank the ligature in the groove behind the wire, then cut the wire and took it off. He left a drainage-tube in all these cases, but in every one it was removed in a day or two, and in none of the cases does he consider that it was of any use, unless it was in the last case, which gave off four and a half fluidounces of blood from the sac in which the tube was fixed.

For small tumors he prefers oöphorectomy, but is not disposed to trust it in tumors larger than a large coconut. He has twice seen hysterectomy required after oöphorectomy had failed; in one of the cases Mr. Tait had done the oöphorectomy, and in the other case Dr. Bantock had done it. The tumor was not very large in either case.

If a tumor has, by adhesions, established a blood supply independent of the uterus, he holds that it is worse than foolish to depend upon oöphorectomy alone. That, if it is the operation elected, that all the adhesions should be ligated and divided with Paquelin's cautery also, if possible.

## MEDICAL PROGRESS.

COCAINE AS A LOCAL ANÆSTHETIC.—DR. KOLLER, of the Vienna General Hospital, has quite recently discovered in cocaine a valuable agent for the production of local anæsthesia. He found that the introduction of from one to three drops of a two per cent. watery solution of cocaine into the corneal chamber rendered both the conjunctiva and cornea completely insensitive, so that, for instance, the cornea could be partially gouged without exciting any reflex action or sense of pain. The same fact was demonstrated by Drs. Brettauer and Becker at the recent Ophthalmological Congress. Koller in his first report mentioned the employment of the same agent in the production of anæsthesia of the larynx.—*Lancet*, October 4, 1884.

THE REMOVAL OF TUBERCULOUS GANGLIA.—CAZIN (*Bull. et Mém. de la Soc. de Chir. de Paris*, tom. x. page 222) gives some statistics on this subject, from the Berck-sur-Mer Hospital.

Of 1482 patients with ganglionic affections treated in this hospital from 1869 until the close of the year 1882, 1118, or 75.44 per cent., were cured; 296, or 19.97 per cent., were improved or taken away; and 68, or 4.59 per cent., died. These very favorable results were in great part due to the influence of the sea-baths and the sea-air, especially in the cases of longest stay in the hospital, amounting in some cases to 450 days. The advantage of so long a course of sea-baths is especially seen when the statistics of other seashore hospitals are compared, the duration of the patient's stay being from twenty days to three months, and the percentage of cures 48.14.

Until 1879 local treatment was confined to painting with iodine, injections of iodine, opening of the fistules, and the establishing of setons. At this time Cazin took charge of the hospital, and undertook to reduce the duration of the treatment by active interference. Whilst he left the non-suppurating glandular swellings of medium size to heal spontaneously, he extirpated with the knife those which were of considerable size, and had been formerly treated by the expectant method; and the sluggish, ulcerating glandular swellings he removed with the thermo-cautery and the sharp spoon. He operated, as a rule, after the patients had been in the hospital for about two months, so that they could be placed under more favorable conditions for an easy recovery from the operation. He always attempts to have the wounds heal by first intention, and thoroughly removes the smallest glands. As a rule, cicatrization took place quickly, but very often the cicatricial surface became the seat of keloid. For a dressing he uses muslin or charpie soaked in alcohol or carbolic acid water. He has operated on 91 out of 335 children; of the cases operated upon, 82.34 per cent. recovered; of the others 68.77 per cent. recovered.

A comparison of the results obtained in the hospital from 1869 to the end of 1878, with those from 1879 to the end of 1882, shows a percentage of recovery, for the first of 71.64, for the latter 75.55. The apparently slight difference is due to the fact that during the years 1879-1882, inclusive, there was a far greater percentage (22.98 against 13.34) removed from the hospital before being entirely cured, but the greater number of these entirely recovered subsequently. The percentage of those only "improved" fell from 3.66 before 1879 to 0.90 afterwards, of the unimproved from 1.66 to 0.60, and of deaths from 4.87 to 3.88; and the death-rate would have been still further reduced had not variola, scarlatina, and croup carried off a larger number than in the first period. The average duration of treatment was reduced from 376 days to 225. In the last three years only 4 cases relapsed; only 2 patients died from the operation itself.—*Centralb. für Chirurg.*, Sept. 13, 1884.

**FRACTURES IN SYPHILITICS.**—In a recent work on this subject Dr. LOUIS GELLE draws the following conclusions on this subject:

In hereditary syphilis one observes, in newly born children, two kinds of lesions, separation of the epiphyses, fractures, either juxta-epiphyseal or in the shaft, lesions which give rise to pseudo-paralysis. In older children, fractures which occur and consolidate spontaneously without specific treatment, just as in the case of healthy persons, though in some cases the children may have specific lesions, as gummata, etc., at a later date.

Acquired syphilis, almost always in the tertiary period, (a) constituting a predisposing cause of fractures; a cause which appears in a number of spontaneous fractures, whether the syphilis causes a general alteration of the osseous system, as some rare cases seem to show, or whether it causes a local lesion which diminishes the resisting power of the bone at this point. (b) In a certain number of cases it retards the consolidation of fractures; sometimes it is a cause of pseudarthrosis, but in the majority of cases the fracture consolidates

under appropriate treatment. (c) It may cause specific ulceration of the wound when the fracture is compound. (d) In some cases it may appear in the cicatrix, the callus forming a locus minoris resistentiae.

Syphilis appears, then, to play an important part in the causation of fractures, and may be manifested at a late period at the seat of an old fracture. In all cases, therefore, in which the fracture is out of all proportion to the traumatism, or in which consolidation is delayed or does not take place, the surgeon should ascertain whether he has not a case of syphilitic affection to treat, so as to aid consolidation.—*L'Union Médicale*, Sept. 20, 1884.

**SUBCUTANEOUS INJECTIONS OF ETHER.**—In adynamic pneumonia, when there is considerable depression of the vital forces, and when the ordinary means have been used without success, and the patient is threatened with asphyxia, DR. H. BARTH injects under the skin a syringe of ether. In grave cases the injection may be given as often as four times during a day.

These injections have an excellent effect upon the cough, and seem to aid the bronchi in discharging the exudate. The injections may be made in the thigh, the back, or the loins. They cause a burning sensation, which, however, soon disappears.

DR. FEREOL uses ether injections whenever there is very pronounced feebleness, following hemorrhage, typhoid fever, etc. In his opinion they are an excellent means for cases of extreme exhaustion, threatening the life of the patient. DR. MOUTARD-MARTIN has used them successfully in the algid stage and the cramps of cholera.—*L'Union Médicale*, Sept. 20, 1884.

**THE DIFFERENTIAL DIAGNOSIS OF FEMORO-POPLITEAL NEURALGIA.**—DR. L. K. LAZAREVIC, of Belgrade, says, in an article on this subject, that femoro-popliteal neuralgia is unquestionably one of the most frequent kinds of neuralgia; so much so that the term ischiagra is usually understood as referring to this kind. Its frequency, and the difficulties in making an exact diagnosis, have led him to a greater consideration and estimation of a symptom which he has always found present, and which appears to him to be pathognomonic.

All the hitherto described symptoms are entirely inadmissible in making an exact diagnosis; either because they are not confined to this type, or because they are often absent. The often-mentioned Valleix's symptom, in which it is said that the patient points out the painful spot with the finger-tip, while in muscular rheumatism he uses the whole hand, is, in the writer's opinion, worthless. Valleix, for example, finds this painful spot most frequently in the region of the posterior superior spine of the ilium; and, though this region is certainly not a point, he says that the patient indicates it with the tip of the finger; whilst Erb most constantly finds it above the foramen of exit of the sciatic nerve, and under the skin at this place. Unquestionably it is very characteristic if the patient, in pointing out the seat of pain, follow the course of the nerve with the tip of the finger; but this very seldom occurs. Even less frequent are such other symptoms as increase of the pain by cough, sneezing, or defecation; and irradiation of the pain,



muscular atrophy, increased growth of hair, vaso-motor disturbances, subjective sensations, etc., are of equally little diagnostic value. No one would make a diagnosis from the pain and the situation alone; and such symptoms as muscular atrophy, anesthesia, the characteristic gait, etc., appear after the affection has been diagnosed by its cause.

The symptom which the writer regards as so important depends entirely upon the anatomical arrangement of the nerves in the leg; and, to understand the bearing of this question, this distribution must be borne in mind.

Every mechanical irritation of a diseased nerve causes pain. Pain is also elicited by pressure; or, if continuous, is increased by pressure, or by stretching the nerve. The painful spots may be found by pressure, but stretching increases the pain along the whole course of the nerve; and, if pain be present, and be increased by pressure or stretching, we have to do with a diseased nerve; and in the case under consideration, with femoropopliteal neuralgia, by pressure on the great sciatic alone, we can mechanically irritate the surrounding parts. The pain caused thereby may also be caused by disease of another part. Besides pressure and kneading of the nerve, we can stretch and make it tense. If the anatomical arrangement of the nerve be remembered, it seems evident that the nerve will be most stretched when the knee is extended, the foot in a state of plantar extension, and the limb flexed on the abdomen. In this position all the branches, both muscular and cutaneous, are put on the stretch.

When the lower limb is placed in the above described position, all these nerves are stretched; and in case one nerve is diseased pain is felt, or increases if already present. Careful measurements of the limb in the strongly flexed and normal positions showed a difference of about three and one-fifth inches (8 cm.), the strongly flexed limb being longer. It is very certain that this flexion is painful in cases of femoropopliteal neuralgia, and more painful as the flexion is stronger. By this stretching other soft parts may be made tense, and the joint put in motion. By this manipulation, therefore, it may be ascertained, by noting the situation of the pain, that one particular nerve is affected, and that the pain proceeds from it. Attention to the anatomical relations also assists in causing movements by which the muscles, and not the nerves, are stretched, and by which the joint is rotated without the nerves being stretched, at least not the cutaneous nerves, to a considerable degree. With the limb in this position a circle may be described, without stretching the nerve, the joint being the centre, the femur, the radius, and the knee the periphery. By pressure on the trochanter and the knee, the head of the femur may be pressed against the floor of the cotyloid cavity. In pure cases of femoropopliteal aneurism this manipulation causes neither pain in the region of the nerve, nor is the pain increased by the movements. From this it is easily understood, as has been observed without exception in all cases of ischias, that all movements by which the nerve is stretched cause pain. Such movements are: A strong tread, with the knee extended; sitting, as in bed, with extended and fixed knee; bending forwards, as though to pick up something from the floor, with extended knee. The walk is characteristic; the knee-joint of the affected

leg is only in a state of extension when the leg serves as a direct support; as soon as the body has passed this point, the joint is again flexed. In order to compensate for the resulting shortened step, the body is carried over toward that leg. The gait is limping, the pelvis of the affected side is raised and carried forwards, and the step of the affected leg is considerably shorter than that of the other. The patient ascends stairs in the same manner as children. He can often, when the knee is flexed, flex the femur on the abdomen by using the quadriceps femoris, and without increasing the pain.

It may be said, then, that when pain is caused by the movements described above, or is increased when already present, we can then seek out the affection by passive movements of the bended knee and surrounding parts. If pain is caused by these movements, or is increased when already present, the diagnosis of ischias postica Cotunnii may be made.—*All. Wien. med. Zeitung*, Nos. 37 and 38, 1884.

**DISLOCATION OF THE ANKLE OUTWARDS.**—FISCHER, of Hanover, reports two cases in which there was outward dislocation of the ankle-joint.

The first case was that of a man, twenty-three years of age, who slipped on a small piece of wood, and fell in such a manner that his left leg was caught under his body. On examination it was found that there was considerable deformity of the ankle-joint; there was plantar flexion, and the tip of the foot was sunk, so that the long axis of the foot made an angle of  $130^\circ$  with that of the leg. The foot could not be rotated around the sagittal axis. The heel was twisted toward the median line, and the tendo Achillis was slightly stretched. The internal malleolus was sprung forcibly against the skin. On the external surface also there was a bony projection, which was not the external malleolus, however, but the fibular articulating surface of the tibia. By pushing the finger behind this the external malleolus could be felt. The fibula was fractured in the usual place.

Reduction of the dislocation was easily performed, and the functions of the joint were completely restored. Fischer believes that the fibula was broken by the twisting of the foot on the piece of wood, and that the joint was dislocated by the fall of the body upon the foot.

The second case was one of rupture of the ankle-joint, with fracture of both malleoli, and outward dislocation of the joint.—*Centralbl. für Chir.*, Sept. 13, 1884.

**MOSQUITOES AND YELLOW FEVER.**—The following propositions, which give in a condensed form the chief conclusions of DR. CARLOS FINLAY's work on Yellow Fever, deserve consideration. Ordinary yellow fever is inoculable by means of the bite of the mosquito (*Culex mosquito*) on the third, fourth, fifth, and sixth days of its natural evolution. The disease cannot be transmitted by the agency of the insect before the third day or after the sixth, no matter what the severity of the disease. The period of incubation of this experimental inoculation varies as widely as that of natural yellow fever. The duration and severity of the fever produced by inoculation by the mosquito appeared to be proportional to the number of the bites, and presumably to the quantity of matter contained in the insect's fang.

The inoculation with one or two bites of the insect has never been followed by phenomena other than those usually met with in benign yellow fever. The results obtained up to the present, lend hope to the suggestion that the inoculation by means of one or two *piqûres* of the mosquito may confer immunity from the severe forms of the disease to those who have to dwell in its midst. The inoculability of the disease by the agency above indicated points to the value of guarding patients suffering from yellow fever against the bites of mosquitoes in order to prevent the spread of the malady.—*Lancet*, October 4, 1884.

**THE DIAGNOSIS OF PREGNANCY IN THE EARLY MONTHS.**—PROF. HEGAR, of Freiburg, in an article on this subject (*Prag. Med. Wochenschrift*, No. 26, 1884), says that the usual diagnostic signs of pregnancy, a change in the general state, suppression of the menstrual flow, changes in the breasts and genital organs, the enlargement of the uterus and changes in the cervix, are, as we know, uncertain in many cases. It is, therefore, important to know some constant symptom.

This constant symptom, he says, consists in a particular softness, a certain suppleness and thinness of the lower segment of the uterus, that is to say, the part immediately above the insertion of the sacro-uterine ligament. This may be easily determined, not only when the uterus is resistant, but even when it is soft and elastic. In the latter case it is possible, by depressing the uterus, to distinguish the upper portions and the rigid cervix. This portion is so soft that it seems as though the cervix is in contact with a pelvic or abdominal tumor. There seems to be no pathological state which gives rise to this sign, not even hydro- and hæmatometritis. The cause of this sign lies in the fact that the lower segment of the uterus becomes the thinnest part during pregnancy, and consequently softer and more elastic; and by combined rectal and vaginal examination it is possible to distinguish this part, with its characteristic feel, between the fingers. It should be remarked that the absence of this sign is not a proof that pregnancy does not exist.—*Annales de Gynécologie*, Sept. 1884.

**DISINFECTING THE SPUTA OF PHTHISIS.**—DR. J. SORMANI, of the University of Pavia, gave some interesting details at the Hygienic Congress of the Hague, concerning experiments made this year on one hundred and fifty guinea-pigs with the sputa from phthisis. The object in each case was to ascertain what chemical or other methods would neutralize the bacillus, which it was previously ascertained existed in large numbers in the sputa. The results of these experiments were summarized in the following manner: 1. The bacilli of tuberculosis were generally very difficult to destroy; dryness, exposure to oxygen, putrefaction, and most disinfectants failed to produce any effect. 2. A temperature of 100° C. only killed the bacilli after at least five minutes of ebullition. 3. The artificial digestion of bacilli showed that they were the last of all living organisms to be destroyed by the gastric juices or chlorhydric acid. A very active digestion is necessary to kill this microbe. A healthy man may destroy the bacilli in his stomach, but an infant or an adult, with his digestive faculties impaired would easily allow the germ to pass

the stomach intact, and retain its virulence in the intestinal tube. This determined enteric ulcerations, etc. 4. The bacillus of tuberculosis can be preserved intact for a whole year when mixed with water. It is probable, though not proved, that it has retained its virulence during that time. Thus, drinking water may become the means of propagating tuberculosis. It is probable that contaminated linen retains its virulence for five or six months. 5. Alcohol does not destroy the germ, and hard drinkers often suffer from tuberculosis. 6. Cod-liver oil, ozone, oxygenated preparations, and other similar remedies, have no effect in killing the bacillus, nor are benzoate of soda, salicylate of soda, sulphate of zinc and carbolic acid, iodide of silver, bromide, camphor, etc., of much greater use. They injure, perhaps, but do not absolutely destroy the bacillus, at least not in the doses that can be taken without danger. 7. A more decisive action may be attributed to creasote, eucalyptol, pure carbolic acid, the naphthols, and bichloride of mercury. 8. For disinfecting spittoons, carbolic acid solution at five per cent. is thought sufficient, and Dr. Sormani asserts that the breath never contains any bacillus. He also suggested that essences of turpentine or eucalyptol should be diffused in the house as an agent for the destruction of this special germ.—*Lancet*, September 20, 1884.

#### GASTROSTOMY FOR STRICTURE OF THE ŒSOPHAGUS.—

In a paper on this subject, read at the late annual meeting of the British Medical Association, MR. JOHN FAGAN suggested the following rules regarding the performance of the operation of gastrostomy:

1. In cases in which the obstruction is partial, it should not be entertained in non-malignant cases so long as a bougie can be passed, or a tube worn to enable the patient to take sufficient nutriment. But should the passing or wearing of an instrument cause great irritation, while the difficulty in overcoming the obstruction is increasing, the operation may, I think, with justice be undertaken. For by it the affected parts are placed in a state of physiological rest; which tends not alone to the improvement of the part, but renders it more amenable to other forms of treatment.

2. In cases due to malignant obstruction, in which the dysphagia is becoming most painful and more marked, if the permanent wearing of a tube cannot be tolerated, there should be no time lost in performing a gastrostomy.

3. In cases in which the obstruction is almost complete, and in which in non-malignant cases bougies cannot be passed, and before the patient becomes too much exhausted and the digestive functions vitiated, the surgeon is fully justified in urging the operation.

4. In cases in which complete obstruction has existed for a short time, the patient's strength being fairly sustained by enemata, and there is no malignancy, the operation may be undertaken with hopes of improvement; in malignant cases, at this stage it should not be urged.

5. In the advanced stage of complete obstruction, no matter what the cause be, the operation should not be undertaken, for the patient, if he survive the immediate shock from it, cannot live more than a few days, that are passed in increased discomfort.—*British Medical Journal*, October 4, 1884.

# THE MEDICAL NEWS.

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SATURDAY, OCTOBER 25, 1884.

## THE DELIVERY OF THE PLACENTA.

The proper management of the third stage of labor is one of the most important practical questions in obstetrics. Indeed, in the great majority of cases of labor the obstetrician has no more responsible duty than the delivery of the placenta; the French very expressively use the term *delivrance* for this concluding act of the drama of parturition.

Many a life has been lost by the obstetrician doing a wrong, or failing to do a right thing at the right time in regard to the separation and discharge of the after-birth; a uterus has been inverted by improper traction of the cord, or by pressure upon the fundus, a fatal hemorrhage has followed neglect to deliver the placenta, or a mortal septicæmia from the introduction of the hand into the uterus, and removal of the secundines in piecemeal, this removal then being usually incomplete. The famous and gifted Mary Wollstonecraft, wife of William Godwin, died from a mismanaged third stage of labor, and her case, so well detailed in the memoir of her husband, is a type of many others.

It is not surprising that a subject of such remarkable concern has engaged much professional thought, and given rise to much professional discussion. The method of delivering the placenta known as Credé's, was published to the profession several years ago, after its distinguished author had given much practical study to it. It was received with much favor, and was more or less generally adopted, so that almost every obstetrician was ready to cry out, *Io Credé!* But after a time the research of obstetric scholars proved that placental expression—for this is the essential idea in his method, though some of the details in

its execution are peculiar, was not a new thing, for it had been advised and practised by some distinguished obstetric authorities in the eighteenth century. More recently one of our most scholarly obstetricians, Dr. George J. Engelmann, found that among some primitive peoples placental expression was the rule of practice, and thus, Credé was anticipated by savage tribes—in so far they were Credists without ever having heard the name of Credé, as were their ancestors before he was born. Finally, there were not wanting some who criticised and condemned the method advised by the Leipsic obstetrician, after having made use of it, a few even replacing it by absolute expectancy. Instead of crying, *Io Credé!* they denied owing him anything.

Contributions to the study of the subject, historical, theoretical, practical, and statistical abound, and the number seems to be constantly growing. Among recent ones to which our attention has been especially directed we may mention an elaborate monograph "De la Delivrance par Traction et par Expression," by Ribemont-Dessaignes; the "Removal of the After-birth," by Dr. Garrigues, published in the *American Journal of Obstetrics*; "Critical Notes on the Delivery of the Placenta," a paper of great interest and value read before the Ohio State Medical Society, by Dr. J. C. Reeve; a paper by Lumpe upon the "Physiology and Pathology of the After-birth Period," found in the *Archiv für Gynaekologie*; and the paper read by Professor Stadfeldt before the Copenhagen International Medical Congress, an abstract of which appeared in our issue of October 4, 1884.

As the distinguished author last referred to seems to give full endorsement to Credé's method, it may be well to bear in mind that others entirely dissent from it, and still others desire in its execution a change in the time of doing it. Ribemont-Dessaignes asserts, after a very patient and large study of the subject, that delivery by traction ought to be the rule, and delivery by expression the exception. Dr. Reeve remarks in his paper: "When Credé states that in two thousand labors the average duration of the third stage was only four minutes and a half, he writes down his own condemnation. This is not nature." Lumpe says that "the expression of the placenta should not be made immediately after the birth of the child, provided the conditions are normal; the after-birth pains should be allowed to act, and the delivery be made at the end of half an hour; it is then easier, and the woman is saved suffering." This conclusion Lumpe has drawn from his own experience, and he has become convinced by that experience that the removal of the after-birth is much easier if one delays expression until half an hour after the birth of the child.

Statistics prove that in almost all cases in which the



expectant plan is followed, spontaneous delivery of the placenta occurs within two hours. Conceding that this plan involves no risks, the comfort of the patient and her relief from anxiety are considerations which the accoucheur cannot ignore, even if he may be so perfectly free from duties to others as to sacrifice two hours or more of his time for the tardy discharge of the placenta. Until the final act of labor is over, a woman cannot be made comfortable as to her body while her mind is in an anxious condition, lest some serious accident impends; and she is thus denied the rest she so much desires and so greatly needs. Even if there were no other grounds, these would be sufficient for rejecting the expectant method of treating the third stage of labor.

Immediate interference is also to be rejected, as well as the administration of ergot in normal cases. He who gives ergot to a woman in the third stage of labor must have some stronger reason for his action than simple delay in the expulsion of the placenta. If from all the cases in which the placenta was said to be adherent, those were eliminated in which ergot had been given, the number remaining would be very small.

We believe the best practice is not especially to observe the rules of Credé, but to obey those of the Dublin school—"to follow the uterus down" by one or by both hands adapted to its form and its lessening size with the expulsion of the child, and to keep up this moderate manual pressure, which should not be so strong as to give the patient suffering, the hand acting for a time as a sentinel and as a guard; and then, as soon as uterine contractions become pronounced, assisting by a firmer pressure in the expulsion of the placenta. For this assistance in discharging the placenta, a definite time cannot be laid down; but one acts with nature, whether the delay be ten, thirty, or sixty minutes. Most certainly there will be variations in this regard in different patients, and in the same patient in different labors—no time-table can be suggested which will be always applicable—nevertheless, adopting this method, the third stage of labor will in almost all cases be completed within half an hour.

#### THE COLLECTIVE INVESTIGATION OF DISEASE.

WE print in another column a note from the American representatives on the International Committee for the Collective Investigation of Disease, together with the statement prepared by the Secretary, to indicate the objects of the Committee.

We have, from the very commencement of the movement for a systematic collective investigation of disease, taken a warm interest in it; we regarded with favor the taking up of the subject by the American Medical Association; and we believe that the international organization is a step in the right direction.

While there are certain diseases, or phases of disease, which are more or less peculiar to certain localities, and are therefore appropriate subjects for inquiry and investigation by local organizations especially, there are many others which extend throughout the civilized world and are thus proper subjects for international inquiry.

Immediate and striking results from collective research are not to be expected. Those who think that the work consists in preparing a list of questions, in scattering these broadcast among physicians, and in printing the answers as though they were so many votes, misapprehend the problem as it appears to us.

If the object of an international collective investigation committee were simply to obtain a greater number of answers to such questions as are contained in the schedules of queries relating to cholera, pneumonia, etc., already issued, it would be doing but a small part of the work which, as we conceive it, lies before such a committee. There is also to be kept in view the desirability of perfecting an organization by means of which we may hope, not merely to answer this or that particular set of questions, but to have at our command ultimately a corps of observers scattered all over the world, who may be called upon to aid in the solution of any problem; to create a new machine for investigation by means of which we may gather the scattered lines of force which at present are to a great extent wasted, and converge them in any desired direction or upon any given point. Furthermore, we may hope that such an organization, when perfected, will exercise a powerful educational influence throughout the world, serving not only to discover new truths, but to diffuse the knowledge of old ones, and to state with authority the probable conclusions which may be drawn and practically acted upon in what are for the present more or less doubtful points.

Its scope should embrace not only curative but also preventive medicine, and it may be hoped that it will in time afford a positive and scientific basis for a scheme of international polity as regards the prevention of the spread of infectious disease.

The perfecting of such an organization as this is not a simple matter; to get the right men into the right places will not be the work of a day or of a year; and it must not be forgotten that it cannot be done without pecuniary expense, which must in some way be provided for. We believe, however, that all these difficulties can be overcome. The work of arranging for preliminary organization is in good hands, and at the meeting of the next International Medical Congress we hope that the subject will receive special attention, and that the committee in charge of the matter will by that time be able to report satisfactory progress.

**COXECTOMY FOR CONGENITAL DISLOCATION OF HIP.**

CONGENITAL dislocations of the head of the femur, especially when they have existed for some time, are notoriously unamenable to permanent relief, the means resorted to for this purpose being, as a rule, directed to limiting the tendency of the bone to further displacement by wearing a strap of webbing around the hips. Within the past few years, however, Esmarch cured a case by permanent extension, and Brodhurst had a successful result after drawing down the head of the bone into the acetabulum, through which the retracted muscles were rendered tense, when their tendons were freely divided subcutaneously. A groin-pad and a thigh-splint, worn for six weeks, effectually prevented subsequent displacement, and the patient was able to walk without the aid of artificial support.

At the recent *Versammlung der Deutscher Naturforscher und Aerzte in Magdeburg*, DR. HEUSNER, of Barmen, demonstrated that such cases are open to more radical measures, and placed on record the first excision of the hip for congenital dislocation. The operation was done for excessive suffering in the left joint of a girl twenty years of age. The ligamentum teres was absent, the head of the femur was about as large as that of a child of six years, ovoidal in shape and much flattened, and its surface was uneven, and the neck of the bone formed an obtuse angle with the shaft. The acetabulum was fully developed and of normal size, although its rim was somewhat flattened and polished above and below. The head, neck, and nearly an inch of the shaft of the femur having been excised, the acetabulum was made deeper with the chisel and the parts brought into apposition. At the expiration of eleven weeks, with the aid of a cane, the patient was able to walk without fatigue for half an hour, the pain was relieved, and there was every prospect of future good use of the limb.

The case briefly narrated shows that the theoretical objection to operative interference in congenital dislocations of the hip, based upon the absence of a well-formed cotyloid cavity, is not well founded. Even if the acetabulum were superficial or deficient, a cavity of sufficient size to accommodate the divided shaft of the femur could be chiselled out of the ilium.

**THE CORPUS LUTEUM.**

SEVERAL interesting questions as to the formation of the corpus luteum are yet unsettled, or at least authorities differ concerning them. By some, for example, it is held that an intravesicular hemorrhage occurs, which contributes to the rupture of the vesicle, and that a blood-clot is, as a rule, found in the fresh corpus luteum; while others believe that this clot is exceptional, and when present hinders the development of the corpus luteum. The investigations of

Dalton led him to conclude that in the human female a clot is usually found. From many examinations of the ovaries of lower animals—cows, sheep, and swine—made by ourselves years ago, we came to the conclusion that hemorrhage in the ripening of a Graafian vesicle was quite exceptional.

BENCKISER has made, in a recent number of the *Archiv für Gynaekologie*, a very complete and careful study of the corpus luteum in swine, and he positively states that a "coagulum is an inconstant" and unnecessary condition for the formation of the corpus luteum." He further says, that the large epithelial cells of the corpus luteum in swine come only from the internal theca of the follicle. He found in the ripe follicle a very well developed capillary vessel system between the internal theca and the membrana granulosa, with distinct nuclei in the vessel walls. In no normal follicle and in no stage was a homogeneous membrane seen between the internal theca and the granulosa. No lymph vessels were found in the structure of the corpus luteum at its highest development, a result which corresponds with that of Exner derived from his study of rabbits.

Benckiser explains the formation of the corpus luteum in swine as resulting from hypertrophy and hyperplasia of preëxisting elements—connective tissue cells, and bloodvessels—in the internal theca of the follicles, which already begin before the rupture of the follicle, and after this rapidly attain their highest point of development.

**MR. VANDERBILT'S GIFT TO THE COLLEGE OF PHYSICIANS AND SURGEONS OF NEW YORK.**

THE recent generous gift of Mr. Wm. H. Vanderbilt to the College of Physicians and Surgeons of New York, is remarkable both for its great liberality and for the enlightened and far-seeing judgment which prompted the act. The donation amounts to half a million of dollars; of which a part has been appropriated to the purchase of land, while the remainder is to be expended in the erection and care of a suitable college building.

This project, we understand, has been in the mind of the donor for nearly a year. He looks upon the medical profession as so largely entrusted with the lives, health, and comfort of the community that it is for the interest of all that its practitioners should receive the best possible education; and he wished to supplement the individual exertions of the doctors for that end by such material aid as would enable them fully to carry out the necessary improvements in medical teaching. Viewed in this light, his donation is of much wider importance than the benefit which it confers on the particular institution endowed by it. It is an example and an admonition to the generous and public-spirited everywhere, that wealth, judiciously expended in the support and equipment of medical schools, is a public benefit; as much so

as if it were devoted to the establishment of hospitals and dispensaries. In this instance, there is another piece of good judgment which we heartily commend. Instead of being carried away with the fancy of creating a new institution, of brilliant but indefinite and uncertain future, Mr. Vanderbilt has deemed it wiser and more practical to endow one already in existence, with such a history and reputation as to demonstrate its fitness for executing the trust imposed upon it.

The land selected for the new domicile of the College of Physicians and Surgeons comprises the western half of the block between 59th and 60th Streets and Ninth and Tenth Avenues, opposite the Roosevelt Hospital, making a plot a little over 350 feet in length by 200 feet in width. One advantage of this location is its proximity to the Roosevelt Hospital, the grounds of which embrace the entire block between 58th and 59th Streets and Ninth and Tenth Avenues. Work is already begun on an additional pavilion for this hospital, and the whole of its land will eventually be occupied in the same manner. The West Side Elevated Railroad will afford rapid communication between the College and the New York Hospital in 15th Street, and the Belt Surface Railroad, crossing the city through 59th Street, gives convenient and frequent access to the hospitals on the east side. The extent of the land now in possession of the College is much more than is needed for immediate building purposes. But this is one of the chief benefits to be derived from the endowment. Thirty years ago, when the College occupied its present building in 23d Street, no one could anticipate the increased demand which has now arisen for the accommodation of laboratories, clinics, and special forms and methods of instruction. It is reasonable to expect that the next thirty years will bring other requirements which are not foreseen to-day; and the College, with ample space at its command, will thus be enabled to develop its resources in an intelligent way, adding new departments, or enlarging the old, as experience shows them to be required.

We believe that no donation for an educational object has ever been made in this country which will bear better fruit than that made by Mr. Vanderbilt to the College of Physicians and Surgeons.

## SOCIETY PROCEEDINGS.

THE NEW YORK ACADEMY OF MEDICINE.

*Stated Meeting, October 16, 1884.*

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D.,  
IN THE CHAIR.

DR. HARRY MARION SIMS presented to the Academy a lifelike and striking bronze

BUST OF THE LATE J. MARION SIMS, M.D.,

which he said he had had cast in Paris, during the past summer, from the marble bust made a few years ago by

the eminent French sculptor, Du Bois. It was received on behalf of the Academy by the President in appropriate terms, and a resolution of thanks proposed by Dr. Wm. T. White was then unanimously adopted.

DR. WILLIAM H. DRAPER read an elaborate *Memoir of the late Prof. Willard Parker.*

The scientific paper of the evening was by DR. AMBROSE L. RANNEY on

### THE THERAPEUTICAL EFFECTS OF THE INTERNAL ADMINISTRATION OF HOT WATER IN THE TREATMENT OF NERVOUS DISEASES.

Having spoken of the mutual dependence and relations of the abdominal, pelvic, and thoracic organs and of the nervous centres, he remarked by way of preface that the tendency of the present time, and especially in the field of neurology, seemed to be to discover and experiment with new drugs to the neglect of simple remedies, whose influence upon the system had never been thoroughly tested. Preëminently at the head of these he would place hot water.

That the benefits of this agent were appreciated by the laity seemed apparent from the fact of its general employment, for it could not be denied that thousands were taking it to-day. The rapid spread of this habit of drinking hot water, which seemed to indicate that the practice was really beneficial, he thought was due entirely to word of mouth, since, so far as he knew, but two articles upon the subject had as yet appeared in the medical journals, and it was impossible that they could have had such a widely extended influence. In no medical work was there any reference to the physiological or the therapeutical effects of the internal administration of hot water.

He then spoke of the different therapeutical effects of different degrees of heat when applied to living tissues; a moderate heat causing a determination of blood to the part, with dilatation of its bloodvessels; a higher degree of temperature, causing contraction of the bloodvessels and diminishing the amount of blood in the tissues; and intense heat, producing a very marked contraction in the bloodvessels of organs and tissues that lie adjacent to the part cauterized. The benefits that resulted from the internal use of hot water, he thought, must be due in part, at least, if not wholly, to heat. The following are the rules which he laid down for its administration:

(1) The water should be taken in doses of from one gobletful to one and a half; the doses being modified in accordance with its effects.

(2) It must be taken *hot* (from 110° to 150°), and, if necessary, fifteen minutes or more may be consumed in sipping a gobletful. Wooden cups prevent the water from cooling quickly. If preferred, the water may be flavored with lemon, sugar, salt, ginger, cinnamon, etc.; but, as a rule, this is entirely unnecessary. When constipation is obstinate, a teaspoonful of Carlsbad salts may be introduced into the morning dose.

(3) The water must be taken exactly an hour and a half before each meal, and again at bedtime.

(4) The temperature of the water should be increased as fast as the patient can bear it.

(5) The water must be continued regularly for at least six months in order to get its full effects.

(6) The dose should be determined largely by the specific gravity, and general character of the urine.



The object of the treatment should be to bring the specific gravity of the urine to the standard of health (1010-1022), and to keep it there.

(7) The use of cold fluids, in the form of beverages, must be absolutely prohibited.

(8) A restricted diet is often necessary to the full effects of the treatment in some forms of nervous derangements. With some patients Dr. Ranney said he forbade all meats, pastry, fresh bread in any form, and fats. In other instances, he employed the meat diet exclusively, the fatty parts being removed before cooking. The sour wines were not usually forbidden, nor was tea or coffee, unless they were apparently injurious to the patient. The condition of the subject, in respect to flesh, was to be the guide, as a rule, to the character of the diet prescribed; provided, that marked disturbances to digestion or dietetic symptoms were not to be combated.

Passing on to speak of the effects of hot water taken internally, he said, that after taking a glass of it a sense of warmth, unaccompanied by nausea, was experienced. It had also the effect of exciting peristalsis in the intestine, and eructations were sometimes caused by it. In the next place, the skin soon showed the effect of heat; a gentle glow spreading over it. The extremities generally became warm, and the viscera were often relieved of engorgement. Perspiration not infrequently resulted from the increased supply of blood to the periphery. Thirdly, the kidneys exhibited marked effects; the quantity of urine being increased, and the proportion of solid ingredients also raised. If diabetes were present, however, the specific gravity, on the contrary, would become diminished. Two cases of diabetes, both of which, he believed, were of neurotic origin, had been cured by Dr. Ranney, by the use of hot water. Finally, the accessory organs of digestion, the liver and pancreas, were excited to increased activity, and flatulence and constipation were relieved.

Dr. Ranney then spoke of some of the cases in which he had used the hot water treatment with success. One was a case of chronic diarrhoea, with extreme nervous debility, which had been cured. The nervous system was especially susceptible to its effects, and hyperæmia and anæmia of the brain and spinal cord were often relieved by it. One lady under his care had been completely cured of neuralgic trouble which occurred in the form of intense paroxysms. In two cases of locomotor ataxia, there had been remarkable improvement. The patients, before taking the hot water, had not improved under the use of nitrate of silver, iodide of potassium, and the application of the actual cautery; but these agents were also kept up after the water treatment was commenced. In one of the cases diplopia and other disturbances of vision had entirely disappeared, while the lancinating pains had also subsided under the use of hot water. Dr. Ranney did not believe at all in the syphilitic origin of ataxia, and thought the etiology of the disease was as yet entirely undetermined. It seemed altogether probable, however, that the continued administration of hot water would sometimes have the effect of arresting the process of sclerosis in the posterior columns and other degenerations of the cord. During the last five years he had treated successfully with this agent, three cases of gastralgia, in which the paroxysms of pain were of long standing and very great severity.

In one of these the diagnosis of cancer of the stomach had been made by the physician who sent the patient to Dr. Ranney. In two cases of local anæmia of the brain with transient aphasia, cures had been effected, and a number of cases of neurasthesia had been completely relieved. In this class of cases tonics were combined with the hot water treatment. In regard to the effect of the treatment on epilepsy and chorea, he had been able to arrive at no positive conclusions.

The theory on which Dr. Ranney based the action of the internal use of hot water in nervous affections was, that the nerves of the stomach, and possibly the solar plexus (the precise relation of which to the central system was not yet determined), were directly influenced by heat introduced into the empty organ. This seemed probable from the results observed in the case of electricity. There was one good thing, at least, about the use of hot water, and that was, that the remedy could do no harm, if it did not benefit. Its effects were somewhat slow, but they were probably permanent. As to the drinking of ice water, he could not condemn the practice too strongly, and he believed that it had been more injurious to the nervous systems of the American people than either tobacco or alcohol. In regard to the good effects which had been observed from the drinking of hot mineral waters in Europe and this country, he thought that the benefit was largely due to the fact that the water was hot. In addition to the heat, the restricted diet, the mental and physical rest, and the general observance of hygienic laws, no doubt contributed to the good result.

The practice of drinking hot water was not to be discountenanced by the medical profession, he thought, merely because it had of late become so popular among the laity, and he then proceeded to answer some of the objections which might be raised against its use.

(1) It might be urged that the remedy was not a new one; but this afforded no good ground for disregarding it, if it really proved of practical service.

(2) That some of the benefits mentioned as resulting from the use of hot water were, in reality, due to the accessory measures employed. In many of the cases, however, hot water was not resorted to until other treatment had been continued for some time without result, and the benefit was marked as soon as this was commenced.

(3) That in many cases the results were not immediate. To answer this, it was only necessary to say that it had been expressly stated that it sometimes took as long as six months to secure the full effects of the remedy.

(4) That patients might have acute attacks of suffering which the hot water would not relieve. The treatment suggested, however, did not preclude the occasional resort to opiates and other similar agents in certain contingencies.

Finally, Dr. Ranney advised a thorough trial of the hot water treatment on the following grounds:

(1) It is harmless.

(2) Its effects are comparatively uniform, provided it be kept up for a sufficient time.

(3) It seems to have a curative effect in the earlier stages of certain organic nervous affections by arresting the advance of the degenerative processes.

(4) Its effects are not merely transient.

(5) It may be employed as an adjunct to other treatment.

(6) It has a marked effect in abnormal vascular conditions of the nerve centres, whether these are hyperæmic or anæmic, and is very useful in headache, vertigo, and neuralgia.

(7) In diabetes and some kidney affections it is attended with happy results. It ordinarily increases the amount of urinary salts.

(8) The functions of the accessory organs of digestion are stimulated by it.

(9) It stimulates the action of the skin, and renders the cutaneous circulation uniform.

(10) It often has the effect of preventing sea-sickness. When used for this purpose, the hot water should be taken regularly for from four to six weeks before beginning an ocean voyage.

DR. E. C. SEGUIN opened the discussion by remarking that his experience with the use of hot water was very limited, and he had not employed it at all in cases of organic disease of the nervous system. There were, however, several points touched upon which seemed to him open to discussion. And, *first*, as to the quality of the agent. Dr. Ranney had classified the degrees of heat as warm, hot, very hot, and intensely hot; the latter degree producing contraction of the capillaries, and typified by the action of the actual cautery. He thought, however, that water which, when poured out into a cup, was at a temperature of from 110° to 150°, could hardly be characterized as a very hot agent by the time it reached the stomach. The temperature must necessarily be greatly reduced in the pouring out, in the drinking, and in the passage down the œsophagus.

As to the cases referred to by Dr. Ranney, a large proportion of them seemed to be instances of neurasthenia, cerebral hyperæmia, etc., which, of all classes of neurological cases, were the most doubtful. The most of these, according to some authorities, indeed, were nothing but cases of malassimilation or lithæmia, attended with certain nervous symptoms. That this view was, in a certain measure at all events, correct, seemed probable, from the fact that Dr. Ranney did not depend on the hot water alone, but employed a combined treatment; laying stress, for instance, on the diet, from which farinaceous and saccharine articles of food were often excluded.

It occurred to him also that possibly the good effect noticed was due, not to the hot water, but simply to the water which the patients took. It had first been pointed out a number of years ago by Dr. McElroy, of Zanesville, Ohio, that in cases of neurasthenia in females, hydrodipsia, or lack of thirst, was often a characteristic symptom, and this was afterwards confirmed by the observations of Dr. S. G. Webber, of Boston, and others. The use of water, whether cold or hot, would thus be sufficient of itself to cure some cases of neurasthenia, and so-called cerebral hyperæmia, by supplying the system with the amount of fluid which it required. Dr. Ranney had furthermore stated that the condition of the urinary secretion (its quantity, specific gravity, and the amount and character of its solid constituents) constituted his guide in the administration of hot water; and this, he thought, was also a corroboration of the theory which he was now suggesting. In the treatment

of organic diseases he had had, as he before remarked, no experience whatever.

Dr. Ranney's theory was, that the effects noted after the administration of hot water were due to reflex action from the walls of the stomach, but if these were due simply to the liquid taken into the system, the share which reflex action had in producing them must necessarily be exceedingly small. The direct effects of heat were recognized as sufficiently patent, but he could see how such effects could be expected from water whose temperature must be much lowered by the time it reached the stomach. As to ice water, he could see no objection to its use, since such was the equalizing power of the system that its temperature became much elevated by its passage through the œsophagus. In concluding, he said he would like to make a defence of cold water, for, in point of fact, he had obtained as good results with it as Dr. Ranney had with hot water. It was his practice to order it to be taken with the meals, on the principle that the gastric juice was said to be more active when diluted.

DR. AMIDON said that in purely nervous diseases he had had no experience with the use of hot water, but in the treatment of nervous phenomena in connection with disturbances of digestion, and in gouty and rheumatic cases he had employed it to a considerable extent. He agreed with the last speaker that its action as a derivative and counter-irritant, when taken into the stomach, must be extremely feeble, and this seemed to be corroborated by the statement of Dr. Ranney, that it took six months for the accomplishment of the results by the remedy. In his experience counter-irritants and derivatives always acted very promptly, and he believed therefore, with Dr. Seguin, that the good effect of hot water was due to its diluent properties, which would satisfactorily explain the gradual manner in which this was produced.

DR. PUTZEL thought that the theory advanced proved too much, since we were asked to believe that the action of the remedy was beneficial in such opposite conditions as anæmia and hyperæmia. If hot water produced an effect on the cerebral circulation (a fact that was not yet proved), it would do harm in anæmia if it did good in hyperæmia, and *vice versa*. He agreed with Dr. Amidon that agents of this kind always acted promptly. Any irritant after a time would lose its effect, and cease to be an irritant at all, unless, perhaps, the dose was markedly increased. If the theory of reflex irritation were true, the best effects from the use of hot water ought to be obtained at first. In the next place, he could not see how an agent whose action on the walls of the stomach was so brief could have any effect in such organic diseases as locomotor ataxia. In one case it had been mentioned that diplopia disappeared very rapidly under the use of the hot water, but he believed that it was not an unusual thing to see ataxic patients recover promptly from diplopia under other treatment or no treatment at all. It seemed to him merely a coincidence and nothing more.

DR. BIRDSALL said that he believed in the efficacy of hot water as well as cold, and thought that heat was one of the principal agents in producing the therapeutic effect. He had been disappointed, however, in the paper in not hearing statistics of a clear character. It was true that

Dr. Ranney had used hot water, but he had not used it alone, which he thought ought to have been done to make his contribution of any value. In all his cases, in addition to the hot water, agents had been employed which had been found of service in the affections in question. To his ataxic patients, for instance, he had given nitrate of silver, which was universally recognized as a valuable agent in tabes. None of his cases, therefore, could be used for statistical purposes. In regard to the use of hot water in functional disturbances of the nervous system, there were so many complicating circumstances that its effect was not certain, and it was perhaps difficult to decide whether any good resulting from it was due to the fact that it was hot or to the merely diluent action of the water. Dr. Seguin had claimed that the water must necessarily be considerably cooled by the time it reached the stomach, but it was by no means certain, he thought, that the effects of the heated water did not commence the moment it came in contact with the mucous membrane of the mouth. In gynecological practice the beneficial results of the action of hot water upon the mucous membrane of the genital tract, had long been recognized. He was not satisfied that no effect was produced upon the vaso-motor system by hot water taken internally, and he believed that the central nervous system was also more or less affected by such peripheral irritation.

DR. C. L. DANA stated that his experience with the use of hot water had been confined to chronic cases in hysterical and extremely nervous women with gastric disturbances, and that he had usually combined with it a more or less exclusively meat diet. He had to confess, however, that he had been somewhat disappointed at the results obtained. Some of the symptoms, it was true, had seemed to be relieved by the treatment; but the general condition of the patients had not improved. Still, he thought that his failures were perhaps due to the fact that he had not employed the remedy with sufficient care, or persevered in its use for a sufficiently long period. Apart from any theories, he thought that the Academy was indebted to Dr. Ranney for calling attention to the benefits of the systematic long-continued use of this remedy. His views were in accordance with those of Wilkes, who long ago had noted that many of the agents which are most beneficial in nervous affections were those whose action was gradual, and which did not produce a direct effect upon the nervous centres.

DR. J. LEONARD CORNING considered that the paper was a timely one, as so many at the present time were talking about the "Salisbury treatment." His own experience with the use of hot water extended only to cases of neurasthenia with concomitant digestive troubles. Such neurasthenic cases, with malnutrition of the nervous centres, might, however, exist without any such complication. In the former class of cases he had found it of service; and, without theorizing upon the matter at all, he had attributed the benefit to the direct effect of heat upon the stomach. But he had never seen it relieve a case of cerebral hyperæmia; a condition which could be more successfully treated by such agents as rarefied baths and the application of electricity to the sympathetic in the neck, as recommended by Drs. Beard and Rockwell. He could not agree with Dr. Ranney, that the results of the hot water treatment were so long deferred, since, in his own cases, much benefit had

been derived from it within two months, or even six weeks.

DR. JOHN SCOTT, of San Francisco, said that he could testify to the very great usefulness of hot water in checking emesis, particularly after the inhalation of ether, as well as in many derangements of the digestive function. As a rule, in the latter, however, he preferred to employ a milk diet, which, in his hands, had proved of the greatest possible service in lithæmia, and also in some affections of the kidneys.

DR. RANNEY thought that Dr. Seguin was mistaken in supposing that merely the effect of simple warmth was produced by the hot water as he ordered it. He directed the patient to take it as hot as it could possibly be borne by sipping it with a teaspoon. He had mentioned the limits of 110° and 150° as those within which its use should be commenced. A few individuals might perhaps be able to take it at a higher temperature than 150°, though he did not think there were many such; and it was never to be taken under any circumstances at a lower temperature than 110°. It had been objected that diet and medicinal agents had been employed, as well as the hot water; but in almost every instance the diet had been restricted and medicines used before the hot water was commenced, without any good result. In one of the cases of diabetes to which he had reference, the patient had long been on a restricted diet, while the quantity of sugar still continued the same; but within three weeks after he began to take the hot water the sugar ceased altogether. As to the point that it was simply the water, and not the temperature of the latter, which produced the good effect, he thought there could be no possible question about this in the mind of any one who had been accustomed to taking hot water in the manner that he had advised. A diuretic effect, for instance, could be obtained by four goblets of hot water a day, which a gallon or even more of cold water would never produce. It was a remarkable fact, also, that hot water satisfied thirst much better than cold. Thirst, indeed, was never experienced by those in the habit of using hot water habitually. Hot water not only had a diuretic effect, but it relieved the irritating character of the urine, and he was at present employing it with happy effect for this purpose in a case of chronic cystitis. Dr. Amidon and some of the other speakers had made a mistake in supposing that he had meant that hot water acted only in a very gradual manner. This agent had a very rapid action; though it often took six months to get its full effect. But while it sometimes took several months before there was decided improvement in the nervous symptoms, the effect on the circulation of the skin and on the kidneys was immediate. To the objection of Dr. Putzel, that the remedy could not do good in both hyperæmia and anæmia, he would reply, that it was well known that certain conditions of the abdominal viscera produced in some individuals cerebral hyperæmia, and in others an exactly opposite condition. The same thing was observed in the effect of alcohol on different individuals. The tendency of the use of hot water certainly was to restore the normal condition of the cerebral circulation, however its action was to be explained.

DR. T. HENRY BURCHARD said he should like to ask Dr. Ranney whether he had ever observed two very serious results of the prolonged use of hot water intern-



ally. The first was a marked loss of power of absorption and assimilation, with rapid inanition. The second was a tendency to internal hemorrhages, such as gastric and intestinal. In his summer practice at Saratoga, he had noticed one or the other of these effects in a number of instances, and his observations had also been confirmed by those of the late Dr. Frederick D. Lente.

DR. RANNEY said that he had never seen or previously heard of any such results as these from the use of hot water.

#### A NEW LOCAL ANÆSTHETIC.

DR. C. R. AGNEW stated that during the past week he had obtained, in fifteen or sixteen cases, results which were most astonishing from the use of a new local anæsthetic, to which attention had been called at the Heidelberg Ophthalmological Congress. This was the hydrochlorate of cocaine, and he could not but feel that nothing had been given to surgery of more practical interest since the discovery of anæsthesia by ether and chloroform. He had employed a two per cent. watery solution of the drug, and found that a drop of this produced insensibility of the scleral conjunctiva within two or three minutes. When an operation was to be performed on the eye, he said he used three drops at intervals, during the fifteen minutes preceding the operation, and he then described an operation for the removal of cataract by von Graefe's method, which he had performed that afternoon upon an aged female, at the Manhattan Hospital. At 2.59 P.M., the first drop of the anæsthetic solution was put in the eye, at 3.4 the second, and at 3.6 the third. The operation was then performed, and at 3.15 the bandage was placed over the eye; the result, of course, not being jeopardized by the unpleasant results which sometimes followed the use of the ordinary general anæsthetics.

THE PRESIDENT asked whether the anæsthetic could be used in other operations than upon the eye; to which Dr. Agnew replied that that remained to be proved. He thought that after the first incision in an operation, the solution might be dropped into the wound with the effect of rendering the parts insensible to pain.

DR. BURCHARD said that at the Presbyterian Hospital a felon had been opened without pain after the patient had held the affected finger in the cocaine solution for some time.

DR. BIRDSALL said that the benumbing effect of erythroxylin coca upon mucous membranes had been known for some time, and he had been in the habit of using it sometimes for this purpose in acute catarrh; but he had never before heard of the agent being used as an anæsthetic for surgical purposes.

DR. AGNEW said that in the eye the drug caused a second effect, viz., mydriasis. The anæsthesia produced by it was apparently of not very long duration. In one instance, when the eye had been rendered insensible at the end of fifteen minutes, the operation had been postponed for half an hour, when it was found that the anæsthetic effect had passed off, and it was necessary to renew the drops.

At the conclusion of his remarks Dr. Agnew gave a practical demonstration of the anæsthetic powers of the cocaine as applied to the eye. In the case of two gentlemen present, who submitted to the test, he was able to grasp the conjunctiva with a pair of forceps, and

move it backwards and forwards without causing any inconvenience; a procedure which under ordinary circumstances would have given rise to intense suffering. The Academy then adjourned.

#### OBSTETRICAL SOCIETY OF PHILADELPHIA.

*Stated Meeting, October 2, 1884.*

THE PRESIDENT, R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. WM. GOODELL exhibited a

#### DERMOID CYST OF THE RIGHT OVARY.

A saleswoman, aged twenty-seven, was obliged to give up her situation, because she found herself unable to stand for any length of time. Her physician discovered a pelvic tumor, and called in Dr. Goodell to see her. The diagnosis was obscure, but he leaned towards a fibroid degeneration of the right ovary. The woman was otherwise well, suffering no pain whatever, except when she was in the upright position. The operation was performed on September 8th, and the tumor turned out to be a dermoid cyst. Being enveloped in the broad ligament it was removed with difficulty. It is stuffed with hair and contains a plate of bone, the sharp edge of which was readily felt per vaginam; but it threw no light on the diagnosis, as it was taken for a fibroid spur. His patient did uniformly well, and is now out of bed. He stated that in his experience these tumors are very vulnerable, and often resent even so slight an operation as aspiration; inflammation and suppuration quickly setting in. A physician had lately brought to his office a young woman who had been tapped last June with a trocar. Long hairs and much sebaceous matter escaped through the opening, which had not yet healed up, and it was for this reason that he had been consulted. Upon passing in a uterine sound he struck a foreign body, which from its density and the sharp click it gave, he was disposed to think was a tooth. He advised dilatation of the fistulous tract and the removal of the offending body.

#### TWO CASES OF OÖPHORECTOMY.

DR. GOODELL also exhibited the ovaries which he had removed on September 17th and 29th from two patients, who also were doing well. He stated that the amount of tissue-change in these ovaries was very slight, and yet the suffering of each patient had been great. One had been an invalid for several years, and bedridden for the past six months. She had lost much flesh, and was always groaning from left ovarian pain, unless under the influence of large doses of morphia, administered hypodermically. The left ovary was found to be undergoing cystic degeneration, but the right one was so sound that in its removal he was glad to have the backing of Prof. W. S. Playfair, of London, who was present at the operation. For he believed that in most cases needing oöphorectomy the results usually showed failures unless both ovaries were removed and the menopause established. Convalescence after the operation had been retarded by great and painful swelling of both parotid glands, which developed without any marked rise in the temperature, and without acceleration of pulse, and declined without suppuration, behaving exactly like mumps. This made his third case

of parotitis following the removal of the ovaries. Not one had ended fatally, and from the very slight febrile movement, he thought that the complication was not symptomatic—as in blood-poisoning—but sympathetic, and that a strong kinship, recognized by laymen, existed between the sexual organs and the cervical glands. Since the operation all pelvic pain had ceased.

The other patient was a poor woman aged thirty, the mother of seven children. She was sent to him by Dr. George S. Hull, of Chambersburg, Pa. Three years ago she began to suffer from double ovarialgia. The pain never left her wholly, but it began to increase in severity a week before the period, culminated during the flux, and faded off afterwards. Large doses of anodynes were also needed in this case, and she was unable to work. The case was clearly one of ovarian dysmenorrhœa, and he believed she would be permanently cured.

DR. CHARLES H. THOMAS asked Dr. Goodell his experience of the result of oöphorectomy. What proportion of cases are relieved?

DR. GOODELL could not reply definitely. He intends to report his cases before this Society at some future time. In the majority of cases menstruation ceases, and that element of trouble being removed, the patient is to that extent always improved. The neurasthenia resulting from previous suffering may remain, but it is far more amenable to treatment after the cause has been taken away. One such case has occurred to him recently. Dysmenorrhœa caused a virtual insanity, with a mind constantly wandering. The removal of the ovaries at once cured the dysmenorrhœa. The patient is now able again to walk, and the mind is improving. The operation removes the major element.

DR. THOMAS has now under his care a case which he thinks typical. The patient is a literary woman, overworked, and crushed by family anxieties and depressing emotions. He prescribed rest and feeding. Massage proved of but little use, and electricity yielded negative results. Forced feeding became impossible. During menstruation she suffered for two or three hours with moderate dysmenorrhœa. Signs of ovaritis developed, with swelling and hardening in the right iliac region. The patient was etherized, and a careful examination resulted in finding nothing materially wrong. As soon as anæsthesia was complete, all the induration and tumefaction disappeared. There was an ulcer of the rectum and moderate ante flexion of the uterus. The ulcer has since been cured, but there is no sensible relief. She suffers from a violent pain in the right ovary, extending to the coccyx and across the abdomen; it is cutting in its character at all times, and terribly severe. Formerly it ceased at night, but does not now. Hypodermic injections of morphia night and morning are necessary. Riding increases the pain, which often extends down the right leg. She cannot sit up long without increasing the pain, which is evidently getting worse day by day. She has been totally disabled for nearly ten months. Is this pain hysterical? Can it be relieved by oöphorectomy?

DR. GOODELL remarked that oöphorectomy is, in any case, a question requiring serious consideration. In the cases just related by him, the patients had neither the means nor the time for prolonged treatment. Whenever possible, everything should be tried before resort-

ing to an operation. One bedridden case under his care, very analogous to Dr. Thomas's, had been relieved by the long-continued use of the constant current passed through the affected ovary. A feeble current was kept up for many hours, sometimes for a whole night at a time. The patient ultimately got well, bore several children afterwards, and is now earning her living by teaching.

DR. CHARLES MEIGS WILSON presented

#### OBSERVATIONS FROM THE STUDY OF ONE HUNDRED AND FORTY-TWO CASES OF HYSTERO-TRACHELORRHAPHY.

Though much has been written on this subject in the past few years, I trust a description of special instruments, and a summary of the histories of one hundred and forty-two cases, will not be amiss. In view of the exhaustive treatment the subject has received in the hands of many observers, I hesitate to report my own limited experience.

One hundred and four of these cases occurred in the practice of Dr. E. Wilson: two in my own, and the others I witnessed as assistant either in hospital or private practice. I regret that circumstances prevented me from obtaining a full history in all the cases. No one should hesitate performing the operation, or be unable to recognize the lesion. Yet very frequently gynecologists have sent to them, either for an opinion or operation, cases diagnosticated as eroding ulcers, fungoid vegetations, cancer, etc., which, when the patient is properly examined, prove to be cases of laceration. The touch alone is sufficient to establish the existence of the lesion. If corroborative evidence is required, the patient should be placed in the knee-chest position, and the uterus exposed with a Sims's speculum; for in this position, if each everted lip be grasped with a tenaculum, by gentle manipulation the natural contour of the cervix can be restored. If this simple feat can be accomplished, the diagnosis is at once established; for, in malignant disease, *ulcerations* of the os, etc., this cannot be done. Reeves Jackson considers this test infallible. Formerly many cases of laceration were comprehended under the generic term ulcer. But the description of the lesion and the operation by Dr. Emmet, has settled forever the "well-worn controversy which so long divided medical opinion concerning the etiology and pathology of the so-called ulceration of the cervix uteri."

Oftentimes useless and injurious applications are made to the cervix, because the gentlemen having the medical care of the cases do not understand that the cervix is torn. The old-fashioned tubular speculum is still too frequently used. It is now generally conceded that it is useless except when *harsh* treatment is to be applied to the cervix without injury to the vagina. The tubular speculum separates the already everted lips, and makes the laceration assume a more angry appearance. Thus faulty methods of examination often obscure the diagnosis. Another difficulty with many physicians is that the symptoms of which the patient complains are too apt to be regarded as the expression of some malady in which the uterus is not involved, unless, indeed, they complain of some vaginal discharge (a condition rarely observed). Again, the train of symptoms which belong to laceration belong equally to many other uterine ailments, and nothing but a carefully conducted examina-

tion can demonstrate that such is the case. The anæmia, debility, and other results of laceration, like the results of many other pathological conditions of the pelvic viscera, are often treated by a course of tonics, whilst the underlying cause of all the mischief goes on with its destructive work.

When a woman consults a physician, complaining of any of the more marked symptoms, such as cranial, rectal, vesical, or pelvic pain, a feeling of weight about the uterus, disordered menstruation, and leucorrhœal discharge, a vaginal examination should be considered an "imperative and essential prerequisite to treatment." The best of investigators is always at hand, namely, the index finger, which, says one of the masters of gynecic surgery, "when properly educated, and used to the full extent of its capability, there is hardly any of the pathological conditions of the pelvic organs in woman which can escape its detective powers."

Simpson in England, and Gardner in this country, first called attention to laceration of the cervix. Emmet, as he himself says in his book, accidentally discovered the lesion in 1862, and devised the operation for its relief. To him belongs the credit of revolutionizing gynecic surgery. Parturition is the chief cause of the lesion. The pressure of the child's head alone, especially if it be a large one; upon the os, may, even in a normal labor, be sufficient to lacerate it. If the os be rigid, or, as frequently happens, be both rigid and attenuated, the danger is, of course, increased. If the longitudinal and oblique fibres of the uterus have greater contractile force than the circular fibres of the lower segment of the uterus have expansive power, the force of the contraction of the former exerted upon the foetal body, which rests upon and is engaged with the latter, may lacerate them owing to their non-expansion. In premature labor, the circular fibres of the os not being ready for the dilatation necessary to permit the egress of the contents of the uterus, may give way, *i. e.*, there may be sufficient irritation of the uterus to expel its contents by contracting the fundus, but not enough to expand the os. Meddlesome midwifery is a prime cause; by which term I mean the practice of trying to force back from the presenting portion of the child the margin of the os, without waiting for it to dilate properly; the desire to expedite the labor in every possible way; the premature rupture of the membranes—the physician forgetting that nature's dilator, the "bag of waters," is the best of all. Experience teaches that all labors in which the membranes have been ruptured prematurely, either accidentally or purposely, are apt to be complicated by some laceration of the obstetric canal, especially of the cervix. Unnecessary and unscientific application of the forceps, and traction made with them without a proper knowledge of the pelvic canal and outlet is another factor. That the forceps is responsible for many cases of laceration, there can be no doubt. When applied high up or within the uterus, they are exceedingly apt to produce tearing of the cervix. Observations made by Dr. Mundé at the Mt. Sinai Hospital, New York, showed 119 cases of laceration in 700 women examined. Dr. Hanks, of the Demilt Hospital, found only eight per cent. troubled with lacerations. The Mt. Sinai is a Jewish institution, and most of its patients Hebrews. These are generally attended by midwives. The Demilt is patronized by the poor of the city generally, and the

patients are mostly attended by young graduates, who frequently use the forceps. As far as these observations go, they show that the forceps, even in inexperienced hands, do not do as much to produce laceration as the often untimely interference of ignorant midwives. Prof. Gross, in one of the last papers which he wrote, spoke of the frequency with which the forceps were applied, strongly condemning this practice, and very justly attributing many of the cases of laceration of the cervix to it. He formulated his views in the words, "The principle causes of laceration are precipitate labor, labor attended with rigidity of the mouth of the womb, and *instrumental* labor." Dr. Fundenberg, in an article which appeared in the *Pittsburg Medical Journal*, makes use of this positive language: "I believe that the forceps, when properly applied, is a preventive of laceration of the cervix. . . . When carefully introduced, for instance, into a rigid os, dilated only sufficiently to receive a narrow blade, the waters being discharged, it preserves the cervix by its inclined plane from sudden impulse, and, imitating the bag of waters in its wedge-like and outward action, it dilates with great and continuous power, with any desirable amount of slowness, and with very great safety." In the one hundred and forty-two cases seen by the writer, the forceps had been used in forty-nine, presumably from the account of the patients at the labor from which their distress dated. Did space permit, I should like to quote from other papers in reference to this question. Suffice it to say that the maladroitness of the forceps is responsible for many cases of laceration.

The breech presentation is another factor, because of the necessity of rapidly delivering the head. The cervix may also be torn by the shoulders after the head has passed safely through. The injurious practice of giving large and frequent doses of ergot prior to the expulsion of the fœtus, is another cause; so too are abortions. The predisposing causes include the various forms of induration, whether caused by hyperplastic deposit or malignant disease, all affections of the cervix producing tissue-softening, such as epithelioma, or any condition interfering with the natural elasticity of the part, as the cicatrices of previous surgical procedures, or, as happened in two of the cases the writer saw, of cauterizations, and any syphilitic or strumous taint, giving the uterus lack of tone. Dr. E. Wilson lays great stress on the muscular depravity, the result of a constitutional syphilitic taint, and the consequent emaciated condition of the os. This muscular degeneration may be the result of many pathological conditions. For example, anæmia, malnutrition, phthisis, and the like. Again, when the uterus is in a state of constant activity, owing to frequent gestation, it is liable to lose tone, and thus pave the way for the exciting cause to light up the trouble. Women are more apt to meet with this accident at the time of their first delivery than subsequently. It occurs also more frequently in rapid labors.

Dr. Emmet believes that partial laceration takes place at the first delivery. Dr. Goodell, Dr. Pallen, and Dr. Mundé record it as being exceedingly common. In two hundred women with uterine disease examined by the writer, nineteen had laceration of the cervix. The lacerations may extend through any portion of either lip. The writer has found the bilateral to be



the most common—the rent being greater upon the left side—and laceration through the posterior lip the rarest form. The fact that a laceration has taken place is seldom noticed at the time of its occurrence. When an examination is made at the completion of the delivery the parts are so enlarged, soft, and yielding, and the os so patulous that it is difficult to detect a laceration. But if a tear has occurred the woman soon begins to complain of symptoms which are well-nigh pathognomonic. Shortly after she rises from her bed and resumes her ordinary household duties, she notices a more or less constant and generally increasing leucorrhœal discharge. This discharge is thick, viscid, and glairy, and sometimes tinged with blood. Sometimes, though rarely, this discharge is absent, or after a time disappears. Pain is a prominent symptom. It is generally of a dull and aching character. It is frequently referred to the lumbar region. Headache is a marked symptom. There is a peculiar sense of weight about the uterus, which is increased along with the pain after exertion. This feeling is augmented when the woman assumes the erect posture. The menstrual flow is, as a rule, increased. It is profuse, longer in duration, and comes on after shorter intervals. There is generally a nasty, glairy, and sometimes semi-purulent discharge during the catamenial intermission. My own observation has taught me that there is generally an increase in duration and amount. When the laceration is recent the increase is so small that it is hardly noticed, but as a rule it increases steadily, until it sometimes assumes the character of a sudden and violent hemorrhage. Patients generally suffer with a feeling of malaise. The general health soon becomes impaired. The digestive system is often the first to suffer. Sexual appetite is usually impaired, sometimes abolished, its gratification always attended with great pain. Insomnia is often present, together with other symptoms of a nervous character. The writer had seen one case in which hystero-epilepsy was a prominent symptom. The symptoms are usually commensurate with the extent of the eversion of the lining membrane of the cervical canal. This membrane when thus exposed loses its delicate epithelial coat, and it chafes against the posterior wall of the vagina. This irritates and inflames the raw surfaces. Hypostatic congestion and engorgement ensue. This prevents proper involution of the uterus, and the parts remain enlarged and soft. The heavy uterus, inadequately sustained by its supports, falls to the floor of the pelvis, dragging the upper portion of the vagina with it. This makes the cervix look elongated, when in reality it is shortened. Sometimes cicatrization takes place, and often this plug of cicatricial tissue gives rise to symptoms more distressing than when the parts remain united. The mental symptoms are sometimes very grave, amounting to such a degree of mental perturbation as to threaten the sanity of the patient. One of Dr. E. Wilson's patients was for some months in an insane asylum. After her cervix was restored her symptoms gradually subsided, and eventually, in the space of six weeks, entirely disappeared. This woman was deprived of her liberty because her friends refused to have the operation done. Another woman in his practice, a subject of melancholia with uterine symptoms, came very near being spayed. After her cervix was repaired, her melancholia and other symptoms

vanished entirely. A very curious case of persistent salivation, apparently due to laceration, at all events which was cured by restoring the cervix, is reported by Dr. Longyear in vol. xvi., No. 1, of the *American Journal of Obstetrics*. Did space permit, I might cite other interesting cases.

If the foregoing views in reference to laceration are correct, the indications for treatment are certainly clear. Having decided to resort to surgical means for the relief of his patient, the surgeon must consider whether the patient is in a proper state of health to operate. The same conditions which militate against other surgical procedures are equally operative in cases of trachelorrhaphy. Where the uterus is bound down by adhesions, or severe inflammation exists, it is dangerous to operate. One case which came under my observation nearly perished from an attack of peritonitis, because forcible traction was made to draw down to the ostium vagina a uterus which was fixed and immobile, owing to adhesions, the result of a former attack of peritonitis. For operating, the patient should be placed in the dorsal position, with her buttocks well drawn down to the edge of the table, an assistant taking charge of each limb. The cervix is exposed with a Sims's speculum, grasped with a volsellum, and gently brought to the ostium vagina. The needle, having an appropriate curve, is passed through the cervix in the median line, from above downwards; it is then armed with a stout piece of silk cord and withdrawn. A blunt-pointed tenaculum is then passed up the cervical canal until it engages the cord, a loop of which is withdrawn. This loop is divided and united to each free end, thus forming two loops, the one controlling the anterior, the other the posterior lip. The margins of the tear are now freshened, care being taken to extend the line of incision beyond the angle of the rent, and to cut out any cicatricial tissue that may be present. The hemorrhage, which is never very profuse, and which, by depleting the vessels of the uterus, tends to ameliorate the inflammatory conditions often present, is easily controlled by the application of hot sponges. Any one who has seen many operations must have noticed the sudden blanching and softening of the cervix, due to the bleeding attending the operation. The late Prof. Gross thought that the benefit of the operation was largely due to this local depletion. I have seen the circumflex artery cut on several occasions, but it never required a ligature to control it. Care should be taken to make the posterior angle of the plug of tissue removed sufficiently acute to allow of the proper approximation of the lips without tension on the sutures. The lower lip should be denuded first, otherwise the hemorrhage will obscure the field. Sufficient mucous membrane should be preserved in the centre to reform the canal. This is not always possible, and when it cannot be done, a small piece of carbolized lint should be inserted to prevent union in the line of the canal. This should be removed at the end of twenty-four hours, otherwise the canal may be occluded. This accident happened in three of the cases of Dr. E. Wilson's series, and the occlusion was overcome with some difficulty. All clots having been removed, and exact hæmostasis having been maintained for some moments, the wound is closed by inserting a needle through both lips, arming it with a wire suture, withdrawing it, freeing the wire,

and clamping it with a shot. The ends are then cut off close to the shot. The sutures should be removed by the tenth day. (He then exhibited some scissors devised for that purpose.) The vagina should be syringed twice daily with a solution of the mercuric bichloride (1 to 2000). A Sims's speculum should be used to remove the stitches, as there is danger of tearing the freshly united surfaces apart with a bivalve. In these cases I have seen excessive bleeding, all occurring on the third day after the operation. This, however, did not seem to come from the wound, but was regarded as the result of a passive congestion of the endometrium.

If the operation is successful, the relief afforded is speedy and sure, and, what is more, generally permanent. The operation is simple, and free from danger. It often renders sterile women capable of childbearing. Dr. E. Wilson has confined ten women in whom he had previously performed the operation. In two there was a slight recurrence of the tear. In many cases, in which coitus was impossible on account of the pain and hemorrhage it produced, the difficulty has been entirely overcome. In one case only did the operator fail to get a satisfactory result. The cervix was badly torn. It was repaired. The woman was afterwards found to have salpingitis. Though her health improved after the restoration of the cervix, she did not recover. In a future communication to the Society I hope to show her Fallopian tubes. Allowed to run its course, the sequelæ of lacerations are endless. Disturbance of the catamenia, dyspareunia, ovaritis, leucorrhœa, subinvolution, grave mental disturbances, and, above all, epithelioma. In conclusion, gentlemen, permit me to quote the words of a distinguished gynecologist: "These are no longer the chimeras and hobbies of the specialist, but grave and serious dangers." It is to be hoped that in time to come, a more scientific and certain knowledge of the dangers and difficulties of parturition, and the means for their avoidance, may enable physicians to avert the accident.

DR. BAER inquired if the operations were done for the relief of sterility.

DR. WILSON replied that they were for the relief of general symptoms. Ten of Dr. Ellwood Wilson's cases have since become pregnant.

DR. GOODELL remarked that he had no trouble in removing the stitches. His method was to leave the two lateral upper stitches with long-shotted ends: by means of these each side of the cervix can be drawn into the field of his bivalve speculum, and the stitches removed with ease.

DR. MONTGOMERY bore testimony to the same, and to the value of the bivalve speculum over that of Sims for that purpose. He had used the double thread through the cervix, and had described its uses before this Society at the meeting of October 6, 1881, and published in full in the *Obstetric Gazette*, January, 1882. As regards the quantity of tissue to be removed in closing a laceration, the operator must be governed by the character of the injury, and it might not be possible to have a satisfactory result where there was an anteversion of the uterus, the flexion occurring in the lower part of the cervix, the anterior lip being elongated and hypertrophied, the posterior normal or even atrophied, for in such cases it was impossible to prevent the preponderance of tissue in the enlarged lip. He could readily understand that

such a uterus becoming pregnant, in the subsequent labor the long anterior lip would form a segment over the child's head, which would almost certainly result in relaceration. In the case which Dr. Wilson cites of extensive laceration during labor, the proper treatment would have been to perform a primary operation by the immediate introduction of sutures rather than permit her to be subjected to the necessity of a secondary operation. It would be necessary to introduce the sutures much deeper, and then to make allowance for the subsequent involution.

It is not infrequent that multiple lacerations resemble epitheliomatous disease, and are accompanied by offensive discharge. He had given temporary relief in such a case by the use of chromic acid and tannin locally. The needle used in passing sutures should not be much larger than the wire that is to follow it.

DR. WILSON questioned the propriety of primary operations on the cervix, and thought the weight of authority against it.

DR. MONTGOMERY remarked that the first case by Montrose Pallen was a primary operation, and was successful.

DR. CHARLES H. THOMAS remarked that at the meeting of this Society, held October 6, 1881, he had reported a case of laceration of the cervix uteri simulating cauliflower excrescence, which he had treated eighteen years before. The patient was exsanguine from hemorrhage, which had put her life in great danger. He used glycerole of tannin tampons, and at the end of two weeks she had improved immensely, and the condition finally proved to be a deep laceration with ectropion. Before the treatment she had been seen by six experienced gynecologists, who declared the condition cancerous, and one of them refused to be convinced that it was not so, saying, within the last four years, that "it had been cancer, it was cancer, and she would die of cancer." When the case was reported, another of the physicians who had originally seen the case, inquired of Dr. Thomas if he "proposed to cure uterine cancer by means of glycerole of tannin tampons." The menopause has since been established, the uterus, examined within the past month, was found atrophied, and the former patient has been for nearly twenty years a hard-working monthly nurse.

DR. GOODELL thought it pardonable to make the mistake. With all his experience he had seen two cases in which he could not for some time make a certain diagnosis. There was no doubt about the existence of a laceration, but whether the angry-looking growths were merely cock's-comb granulations or epithelioma was not so easy to decide. They eventually proved to be benign.

## NEWS ITEMS.

STATEMENT RELATING TO THE INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE PROPOSED AT THE INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN.—The General Meeting of the International Medical Congress, held at Copenhagen on August 14th, passed the following resolution:

That an International Committee be formed for the Collective Investigation of Disease, in connection with the work of the International Medical Congress.

PROFESSOR JACOBI, of New York, and Dr. N. S. DAVIS, of Chicago, were appointed as representatives of the United States.

The main objects which the Committee seeks to attain through the Collective Investigation of Disease are to widen the basis of Medical Science, to gather and store the mass of information that at present goes to waste, to verify or correct existing opinions, to discover laws where now only irregularity is perceived, to amplify our knowledge of rare affections, and to ascertain such points as the geographical distribution of diseases and their modifications in different districts. It will be its endeavor to place clearly before the whole profession the limits and defects of existing knowledge, as well as to stimulate observation, and to give it a definite direction. It will be a not unimportant incidental result of its work should it tend, as is hoped, to the better training of the members of the profession in habits of scientific and practical observation, and in systematic methods of recording the facts which they observe.

The age in which we live has seen enormous advances in the sciences on which the fabric of Medicine rests, such as Chemistry and other branches of Physics, Physiology, and Pathology. Each of these has taken giants strides. It must be admitted, however, that purely medical knowledge has scarcely made proportionate progress. It cannot be expected that it should do so, as it deals with the aberrations of the most complex of organisms, is of all sciences the most difficult, and demands the greatest patience and the largest accumulation of data.

Hitherto the advancement of Medical Science has been brought about mainly by individual effort. The value of such work in the past we in no way under-rate, nor do we desire to lessen the amount of it in the future; but in Medical Science there is much that defies interpretation from individual experience, and many problems so far-reaching in an ever-widening field, with elements so manifold, that no single man, however gifted and long-lived, can hope to bring the whole within his range. The need, therefore, in Medicine, of that combination and concentration of individual work which is adopted in many other branches of science and in commerce, and to which increasing facilities of intercommunication have given so much impulse and so much strength, cannot be questioned. Indeed, it may be said that, resting on individual research alone, medical knowledge can be advanced but slowly and with difficulty. Future progress to any great extent must be the work, not of units acting disconnectedly, but of the collected force of many acting as one. For many to act as one, organization is needed; that organization it is the purpose of our Committee to supply.

Disease is many-sided; and we wish to include in our organization those who see it from every side. All, therefore, whether hospital physicians, family and school attendants, specialists, medical officers of the Army and Navy, and of workhouses and asylums, will be asked to contribute their quota of observation to the common fund.

In England and in Germany organizations for this purpose already exist, through which good work has been accomplished; and a volume entitled the *Collective Investigation Record*, containing tabulated returns, with reports upon them and other matters, is published

annually by the British Medical Association. France and Austria are alive to the importance of the new method. In Scandinavia and in the United States the foundations of associations have been laid. Denmark, Russia, and Switzerland are setting their hands to the task. To unite these several associations by an international organization for the study of various problems, and to induce the formation of similar combinations elsewhere, is felt to be a work peculiarly befitting an International Congress. The Committee was enjoined by the Congress at Copenhagen to endeavor to carry out this work, and, in compliance with that injunction, it invites the coöperation of all who have at heart the promotion of medical science and practice.

The following is the proposed method. A subject having been selected, a person or persons of acknowledged authority will be asked to write a memorandum, in the form of a short essay, upon it. The memorandum will succinctly give the present state of our knowledge. It will also point out the directions in which further research may best be made; and, with this view, will suggest a few simple and definite questions upon the subject selected. The questions will relate to matters of fact, to be elicited by observation of cases, rather than to matters of opinion.

The contemplated organization will, it is hoped, in time enable the Committee to ask and collect answers to these questions from the profession at large wherever scientific medicine is studied or practised. It will be a further duty to examine, arrange, tabulate, and deduce results from the mass of observations thus collected, due credit being given to each contributor for the information he has furnished; and reports on the results of the several investigations will be laid before the International Congress at its next meeting at Washington.

**THE CHOLERA IN ITALY.**—The United States Consul at Genoa gives a history of the appearance of cholera in that city and province, and the cause assigned for its rapid spread. It will be read with interest as showing the effect of a contaminated water supply:

The first cases were reported on the 22d of September, but up to the evening of that day the authorities were unwilling to believe that the victims were possessed of the epidemic. From the last-named date to the afternoon of the 24th, 16 cases and 7 deaths were recorded. On the 25th, to 3.30 P.M., as stated in my telegram, 33 new cases were reported and 18 deaths. The most singular fact in the advance of the malady in Genoa is that it seeks and finds victims in every part of the city. Reports from other places where the cholera had raged located the disease in the narrow, sunless streets, and among the poor people; in Genoa it is everywhere; the lightest, healthiest localities, and the widest and most airy thoroughfares have yielded up victims to the epidemic. The very street in which the Consulate is located, together with the French, Austrian, and that of Turkey, has furnished victims, one of whom was taken from the second building to the one in which I am writing this dispatch. Even on the high and airy Piazza Cariguane, where English and American visitors temporarily reside when in Genoa, two letter-carriers succumbed to the malady when in the act of delivering the mail.

The knowledge that cholera is striking everywhere in



the city and among all classes, has created much sober thought among the people. Thousands of the naturally timid have left the city, while those of bolder character look at the situation as decidedly uninviting.

There is cause for serious thought, for a person cannot walk far on the street without witnessing the spectacle of plague-stricken humanity being carried past, some to the hospital, others to their final resting-place, without religious rites or mourners to follow them to their narrow beds. It is my sad privilege to witness daily such scenes. The outbreak of the epidemic in Genoa, and especially in localities which were considered all but proof against the malady, called for serious investigations; for, as I stated to the Department in previous dispatches, the authorities, through their ceaseless watching, untiring energy, and the great pains taken day and night to keep the city clean, succeeded till now in keeping the cholera out of what has been looked upon as the most exposed port to the disease of any in all Italy, from the fact that all vessels from French ports unload and load merchandise here before proceeding further south.

Experts were therefore appointed to investigate the matter thoroughly, and their verdict is that the spread of the epidemic in all parts of the city was caused by *impure water*. As if to add more weight to this verdict, although not officially so reported, it is understood, throughout the city, that out of 68 cases of cholera during the first three days of the ravages here there were 61 deaths, and of these 61 victims it was discovered that all of them had used the water brought from a certain aqueduct. Further, it was proven, before an analysis of the water was made, that fish had died in fountains fed from the water-course alluded to.

A brief description of Genoa's aqueducts and their feeders, and the causes assigned for the impurity of a portion of the water, may not be out of place here.

This city is supplied with water from three aqueducts, two of which belong to joint stock companies, the other to the city. The "De Ferrari Galleries" (joint stock concern) and the city aqueducts are about fifteen miles long and both are fed from the rivers.

The third water-course, the Nicolay aqueducts (joint stock company) is about thirteen miles long and is supplied by the river Scrivia. The water from the Nicolay is supposed to be the primary cause of the introduction of cholera into Genoa, and for the following reasons: Near the head of this aqueduct is a village called Busalla, and close by the village between 1500 and 2000 laborers are employed. The men are under the village excavating a new railroad track. They are described as in a most filthy condition. Cholera broke out in Busalla on the 14th of September, and up to the date of the investigation by experts (heretofore mentioned), there were recorded twenty-five cases of the epidemic and fourteen deaths in that village. Inquiry disclosed that nearly all the workingmen, both the sick and the well, had their clothes washed in the Scrivia, the river which supplies the Nicolay aqueducts.

As soon as the Mayor of Genoa, a brave, fearless, and energetic executive officer, heard of these things, he immediately ordered the Nicolay Company to shut off the water of the Scrivia and turn the waters from the Garzento into their water-course. This was not a long nor an expensive job, as the two other aqueducts are very close to the Nicolay; but the company refused,

whereupon the Mayor caused the work to be done and had the cost thereof charged to the Nicolay Company.

Whether the stopping of the Scrivia water supply has checked the disease in Genoa or not, is something of a conjecture, but one thing is certain, the people praise their energetic mayor for his actions in the matter. The official reports of cases of cholera in Genoa, I am inclined to think, are right, but I am morally certain that fully seventy-five per cent. of the number find relief in death. Another item should be mentioned here: only cases in the city proper are reported as in Genoa, and yet there is only the difference of a street or a wall between Genoa and several suburban towns, and all the latter have more or less cases.

The total number of cases and deaths from cholera in the province of Genoa since the disease first appeared, up to the 24th of September, is given as follows: Cases, 1168; deaths, 617.

The death reports are irregular and oftentimes contradictory; as stated above, 75 per cent. of those who have been struck with the malady have undoubtedly died. Orders have been issued prohibiting this year's wine from being sold in the city.

Since its outbreak in the city, business has been almost entirely suspended. Many shops are closed and the proprietors thereof are rustivating in more healthy quarters.

**THE CHOLERA IN FRANCE** (*concluded from page 446*).—The United States Consul at Marseilles gives the following account of the spread of the epidemic in Southern France.

Since the date of my last report, the cholera has spread widely throughout the whole district within a radius of one hundred to one hundred and fifty miles from Marseilles. At Arles, Aix, and Certe, as in this city, the disease seems to have spent its first malignant energy, and the death-rate in those places is either stationary or slowly declining. At other places, notably in various small villages in the Departments of Ardeche, Neiault, and Basses-Alpes it has broken out, within a week past, with fatal intensity. Among the most striking cases of this class, is that of the village of Omergues, twenty-five miles from Listeron, in the Department of Basses-Alpes. The place is a small closely built mountain hamlet, of seven hundred people, having no physician or apothecary, and few ideas of cleanliness or sanitary prudence. About ten days ago, a servant from Marseilles returned to her family at Omergues, bringing the fatal germ of contagion. She and two other members of her family died, and the corpses were left for a day or more unburied, panic seized the little community, and before the facts became known, and help could be sent from Listeron, twenty-five of the poor creatures had died. The Prefect of the Department hastened to the scene, physicians and medicines were brought, and the epidemic at that point was checked, although it still prevails there in a very fatal form.

In many cases the contagion is preserved and spread by that most wilful and criminal stupidity which prompts these thrifty peasants to preserve and sell the bedding and clothes of their dead relatives. These, with the other large contingent whom no danger or warning can prevent from excessive indulgence in melons, stale fruits, and cold drinks, have been in this, as in past

epidemics, mainly instrumental in keeping alive and transmitting the pestilence.

There seems to be, however, some definite suggestions in the capricious, irregular spread of the cholera throughout Southern France this summer, passing by certain villages to attack others in the same neighborhood, and increasing or diminishing under certain conditions of moisture, winds, and temperature. A careful study of all attainable facts of this kind would seem to show that the ignition and spread of cholera in a community is favored by four fundamental conditions, viz.:

1. Porosity of soil, which would allow choleric dejections to penetrate to sufficient depth to reach springs, wells, or other sources or channels of water used for domestic purposes. Open gravelly soils are therefore the worst in this respect.

2. The facilities offered by drains, sewers, and water-courses for the circulation of infected water under and among the dwellings of a village or city.

3. The accumulation of fecal or other decaying organic matter infected by choleraic dejections.

4. Close, crowded, ill-ventilated dwellings, combined with unwholesome and irregular alimentation and neglect of cleanliness.

All this has, of course, long been known, but it is worthy of record, that during the spread of the present epidemics the town and villages of Southern France have been stricken in very exact proportion to the degree in which they involve one or more of the above conditions. What is called the "caprice" or "waywardness" of Asiatic cholera is simply its persistence in seeking conditions favorable to its propagation and diffusion.

*Special Medical Inspection of Vessels Bound to the United States.* In accordance with the most recent instructions of the Department, abstracts of bills of health issued at this consulate to vessels clearing for American ports are forwarded, and comprise all the clearances which have been made from Marseilles to the United States since the enforcement of the regulations concerning special medical inspections. Every effort is made to render the prescribed inspections of vessels, passengers, baggage, and merchandise as thorough as possible, but it is essential that the real facts of the present situation should be neither underestimated nor misunderstood.

The harbor of Marseilles covers nearly the entire water front of the city and has but three narrow outlets to the open sea. Into these enclosures of tideless water the sewers pour the filth and dejections of the entire city, nearly every part of which is at present more or less contaminated by cholera. Poisoned thus by a constant influx of sewage, stagnating and festering under the sultry heat of midsummer, the waters of the pool of Marseilles have become putrid and pestilential. Any vessel which is moored for even a day in the harbor, or any freight that may be landed or taken on board under such conditions, may become infected to a degree which may involve future danger but which *no present inspection can detect*. The three English vessels which developed cholera on board during the past month left this port after careful inspection, and were, apparently, free from contagion. This has happened to vessels which while in port here permitted none of their crews to land nor took on board either water or

provisions. The plain teaching of these facts would seem to be that every vessel from the port of Marseilles is liable if not likely to be infected despite every precaution of her officers, and although the most careful inspection may fail to discover any flaw in her sanitary record or present condition. While these conditions exist, at least until the end of October, all vessels and textile merchandise coming from Marseilles should, in the opinion of this consulate, be subject to careful quarantine regulations at ports of arrival.

The port of Cette, though in better condition than that of Marseilles, is likewise infected with cholera, and all arrivals from there should be subject to similar regulations.

U. S. Consul Mason telegraphs from Marseilles under date of October 16th, that "Port Cette has been declared clean. The epidemic at Marseilles is practically ended; only three deaths in past five days, all due to imprudences."

**REPORT OF THE SURGEON-GENERAL OF THE ARMY.**—The Surgeon-General of the Army, in his annual report to the Secretary of War, says that an increased amount of appropriation for the purchase of artificial limbs and appliances for the next fiscal year is necessary. He speaks of the apparent hardships in carrying out the laws for furnishing trusses, and recommends that the existing law on this subject be so amended as to correspond with that relating to artificial limbs. Medical and hospital supplies were issued during the year to the amount of \$166,567, and the cost of the supplies required during the current fiscal year will probably exceed that amount by at least \$25,000. He renews the suggestion made in his last annual report, that Congress so legislate as to permit the sale of medical supplies to civilian employés.

The total number of deaths among white troops was 250, or 12 per 1000 of mean strength, an increase of 2 per 1000 over the rate for the previous year. The number of white soldiers discharged for disability was 838. The total number of deaths among the colored troops was 22, or 10 per 1000 of mean strength, which is 1 per 1000 lower than the death-rate of the previous year. He notes the fact that this is not only the lowest death-rate yet reached among the colored troops since their organization, but that it is the first time the rate has fallen lower than for white troops; the usual average difference being 3.2 per 1000 of mean strength in favor of the latter class. The number of recruits examined during the year was 6263 white, 453 colored, and 239 Indian scouts. The number rejected was 2041 white and 146 colored.

During the year there were added 144 new specimens to the collection of the Army Medical Museum, making a total of 9114 specimens now in the museum. During the year 13,598 visitors registered at the museum. The additions to the library include 4000 volumes, and 5500 pamphlets. The Medical and Surgical History of the War will probably be completed and ready for issue in about a year. This work is in the hands of Surgeon Charles Smart. The Surgeon-General expresses a hope that action may be taken during the coming session of Congress to provide a fireproof building for the Army Medical Museum and Library of the Surgeon-General's Office, and that immediate steps be taken to secure a

safe depository for these valuable collections, now in constant peril from the dangers which surround the present unsuitable building.

THE AMERICAN ACADEMY OF MEDICINE will hold its ninth annual meeting in Hopkins Hall, John Hopkins University, Baltimore, on Tuesday and Wednesday, October 28 and 29, 1884.

WASHINGTON OBSTETRICAL AND GYNCOLOGICAL SOCIETY.—At the annual meeting of the Washington Obstetrical and Gynecological Society, held October 17, 1884, the following officers were elected for the ensuing year:

*President.*—Dr. Samuel C. Busey.

*Vice-Presidents.*—Drs. W. W. Johnson and J. Taber Johnson.

*Recording Secretary.*—Dr. C. H. H. Kleinschmidt.

*Corresponding Secretary.*—Dr. Samuel S. Adams.

*Treasurer.*—Dr. George Byrd Harrison.

RECTAL ETHERIZATION.—We note, for the benefit of those interested, that Pirogoff's experience with etherization by the rectum is to be found in his *Voyage Médical au Caucase*, St. Petersburg, 1848.

THE FRENCH CHOLERA COMMISSION IN EGYPT.—The report of the anatomical and experimental researches of MM. STRAUSS, ROUX, NOCARD, and THUILLIER, on the cholera epidemic in Egypt in 1883, is published in the *Archives de Physiologie normale et Pathologique*, 1884, No. 4.

THE ENGLISH CHOLERA COMMISSION, Drs. Klein and Gibbes, and Mr. Lingard, have arrived in Bombay and are reported as being busily at work.

KOCH DECLINES COHNHEIM'S CHAIR.—The *Deutsche medicinische Wochenschrift*, of September 25, states that DR. KOCH will not accept the Chair occupied by the late Professor Cohnheim in the University of Leipzig. Though the invitation was most flattering, Dr. Koch says that he owes much to Prussia, and to leave her service now would be ungrateful in him.

OBITUARY RECORD.—Died, at his home in Augusta, Ga., LOUIS ALEXANDER DUGAS, M.D., in the seventy-eighth year of his age. Dr. Dugas was born in Washington, Ga., in 1806, of French West Indian parentage. After receiving his early education from a private tutor he began the study of medicine in the office of Dr. John Dent, of Augusta. Then he pursued a course of study in the medical department of the University of Maryland, from which he graduated in 1827. He passed four years in study in Europe, and then settled down to the practice of his profession in Augusta. In 1832 he was one of the founders of the Medical College of Georgia, and filled the Chair of Surgery. He retained this position until the close of his life. He has several times served as President of the Medical Association of Georgia. He became editor of the *Southern Medical and Surgical Journal* in 1851, and retained the position for seven years. During the war he was a volunteer surgeon in many of the military hospitals.

—PROFESSOR HERMANN VON ZEISSL, who added so much to Dermatology and Syphilography, has recently

died in Vienna. He was born in 1817, and entered the University of Vienna in 1839, where he became one of Skoda's most enthusiastic pupils. On graduating, he entered the Vienna General Hospital, and acted as Assistant in different clinics. He then turned his attention to Dermatology and Syphilography. In 1860 he was appointed Professor Extraordinary of Dermatology. In 1869 he received the title of Regierungsrath. For several years his health has been bad, and he suffered an accident during the past summer which hastened his death.

## NOTES AND QUERIES.

DAVIS'S METHOD OF TREATING PLACENTA PRÆVIA.

To the Editor of THE MEDICAL NEWS.

SIR: In Prof. Parvin's address before the Lehigh Valley Medical Society, August 19, 1884, in speaking of the treatment of placenta prævia, he speaks of the method of Dr. R. Davis, of this city, as a modified Cohen method. I wish to say that Dr. Davis claims that his method is original, so far as he knows; that it was published in the *Transactions of the State Medical Society* in 1876, and has been recognized as his by the profession ever since. We do not want the credit of the work that is done by our physicians to be given to the Germans. Yours,

MARIS GIBSON, M.D.

WILKES BARRR, PA., Oct. 19, 1884.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM OCTOBER 14 TO OCTOBER 20, 1884.

NORRIS, BASIL, *Lieutenant-Colonel and Surgeon*.—Relieved from duty as Attending Surgeon, Washington, D. C., and ordered for duty as Medical Director Division of the Pacific and Department of California, relieving Surgeon E. I. Baily, Colonel Baily, on being relieved, will assume the duties of Attending Surgeon at San Francisco, Cal.

SPENCER, WM. C., *Major and Surgeon*.—From Department of Dakota to Department of the East.

GODDARD, CHAS. E., *Major and Surgeon*.—To be relieved from duty at Jefferson Barracks, Missouri, and to report for duty in Department of Dakota.

MCCLELLAN, ELY, *Major and Surgeon*.—From Department of the East to duty at Cavalry Depot, Jefferson Barracks, Missouri. —S. O. 242, A. G. O., October 15, 1884.

WOLVERTON, W. D., *Major and Surgeon*.—Granted one month's leave of absence, to take effect when his services can be spared by his post commander. —Par. 4, S. O. 211, Department of the East, October 16, 1884.

WINNE, C. K., *Captain and Assistant Surgeon*.—In addition to his duties as Post Surgeon at Benicia Barracks, will also attend the sick at Benicia Arsenal, California. —S. O. 122, Headquarters Department of California, October 13, 1884.

HAVARD, VALERY, *Captain and Assistant Surgeon*.—Assigned to temporary duty at Fort Schuyler, New York Harbor, N. Y. —Par. 2, S. O. 211, Department of the East, October 16, 1884.

PORTER, J. Y., *Captain and Assistant Surgeon*.—Granted leave of absence for one month, on surgeon's certificate of disability, with permission to leave the limits of the Department. —Par. 3, S. O. 138, Headquarters Department of Texas, October 9, 1884. Confirms telegraphic order of same date.

PHILLIPS, JOHN L., *First Lieutenant and Assistant Surgeon*.—Transferred from Department of the East to Department of Dakota. —S. O. 245, A. G. O., October 18, 1884.

THE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

All communications relating to the editorial department of the NEWS should be addressed to No. 1004 Walnut Street, Philadelphia.